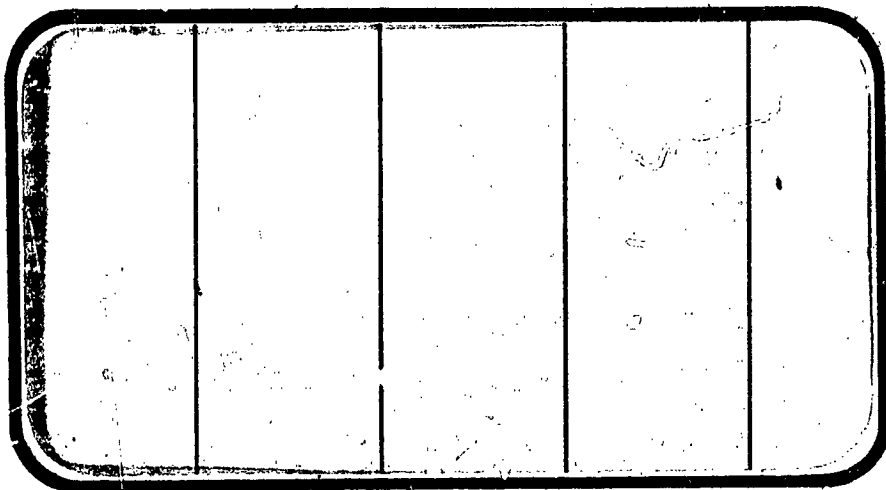


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**SPACE DIVISION**  **CHRYSLER CORPORATION**

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VOLUME 3 OF 13

TERMINAL AREA ENERGY MANAGEMENT  
REGIME INVESTIGATIONS UTILIZING AN 0.030-SCALE  
MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE  
ORBITER CONFIGURATION 140A/B/C/R IN THE  
AMES RESEARCH CENTER 11 X 11 FOOT  
TRANSONIC WIND TUNNEL (0A148)

by

P. J. Hawthorne  
Rockwell International Space Division

Prepared under NASA Contract Number NAS9-13247

by

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for

Engineering Analysis Division  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas



WIND TUNNEL TEST SPECIFICS:

Test Number: ARC 11-073  
NASA Series Number: OA148  
Model Number: 47-0  
Test Dates: May 5 through May 17, 1975  
Occupancy Hours: 220

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Chrysler Corporation Space Division assumes no responsibility for the data presented other than display characteristics.

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ABSTRACT

This report documents data obtained in wind tunnel test 0A148.

The objectives of the test series were to:

1) obtain pressure distributions, forces and moments over the vehicle  
Orbiter in the terminal area energy management (TAEM) and approach phases  
of flight.

2) obtain elevon and rudder hinge moments in the TAEM and approach  
phases of flight.

3) obtain body flap and elevon loads for verification of loads  
balancing with integrated pressure distributions.

4) obtain pressure distributions near the short OMS pods in the high  
subsonic, transonic and low supersonic Mach number regimes.

Testing was conducted over a Mach number range from 0.6 to 1.4 with  
Reynolds number variations from  $4.57 \times 10^6$  to  $2.74 \times 10^6$  per foot. Model  
angle-of-attack was varied from -4 to 16 degrees and angles of side slip  
ranged from -8 to 8 degrees.

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7	ORBITER FUSELAGE BODY FLAP DEFLECTION 0 DEGREES	ALPHA, MACH PHI, BETA	D	763-864
8	ORBITER FUSELAGE BODY FLAP DEFLECTION 16.3 DEGREES	ALPHA, MACH PHI, BETA	D	865-966
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10	LEFT WING BOTTOM SURFACE ELEVON DEFLECTION 10 DEGREES	ALPHA, MACH 2Y/BW, BETA	E	1052-1136
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# INDEX OF DATA FIGURES (Concluded)

FIGURE NUMBER	TITLE	CONDITIONS VARYING	PLOTTED COEFFICIENTS SCHEDULE	PAGES
14	VERTICAL TAIL SPEEDBRAKE DEFLECTION 35 DEGREES	ALPHA, MACH Z/BV, BETA	F	1375-1442

## PLOTTED COEFFICIENTS SCHEDULE:

- A) CY, CYN and CBL versus BETA
- B) CN, CA and CLM versus ALPHA
- C) CHEO, CHEI, CHETOT and CHBF versus ALPHA
- D) CP versus X/LB
- E) CP versus X/CW
- F) CP versus X/CV

# NOMENCLATURE

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
$A_b$	AB	total Orbiter base area, $ft^2$
$A_i$	AI	area over which $P_i$ acts, $ft^2$
$A_{sb}$	ASB	speed brake base area, $ft^2$
$b$	BREF, BW	Orbiter wing span, in
$b_v$	BV	vertical tail reference span, in
$C_{A_u}$	CAU	Orbiter uncorrected axial force coefficient
$C_A$	CA	Orbiter axial force coefficient with sting cavity adjusted to average base pressure
$C_{Af}$	CAF	Orbiter forebody axial force coefficient.
$C_{Asc}$	CASC	Orbiter sting cavity axial force coefficient.
$C_{Du}$	CDU	Orbiter uncorrected drag coefficient
$C_{h_{bf}}$	CHBF	body flap hinge moment coefficient, about hinge line $X_0 = 1532.0$
$C_{h_{ei}}$	CHEI	inner elevon hinge moment coefficient, about hinge line $X_0 = 1387.0$
$C_{h_{eo}}$	CHEO	outer elevon hinge moment coefficient, about hinge line $X_0 = 1387.0$
$C_{h_{eTOT}}$	CHETOT	total right elevon hinge moment coefficient
$C_{Lu}$	CLU	Orbiter uncorrected lift coefficient
$C_l$	CBL	Orbiter rolling moment coefficient, body axis system

# NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
$C_m$	CLM	Orbiter pitching moment coefficient with sting cavity adjusted to average base pressure, referenced to Orbiter MRC.
$C_{m_u}$	CLMU	Orbiter uncorrected pitching moment coefficient
$C_{m_F}$	CLMF	Orbiter forebody pitching moment coefficient referenced to orbiter MRC.
$C_{m_{sc}}$	CLMSC	Orbiter sting cavity pitching moment coefficient, referenced to Orbiter MRC
$C_{N_u}$	CNU	Orbiter uncorrected normal force coefficient
$C_N$	CN	Orbiter normal force coefficient with sting cavity adjusted to average base pressure
$C_{N_F}$	CNF	Orbiter forebody normal force coefficient
$C_{N_{sc}}$	CNSC	Orbiter sting cavity normal force coefficient
$C_n$	CYN	Orbiter yawing moment coefficient, body axis system
$C_{p_i}$	CPi	surface tap pressure coefficient, port i, $(P_i - P_\infty)/q$
$C_y$	CY	Orbiter side force coefficient
$C_{[X][Y]}$	$C[X][Y]$	base area force and moment coefficients. The first subscript (post fix) designates the type of coefficient, the second the pressure tap and it's associated area. The symbolic vectors [X] and [Y] are defined below.
<u>[X]=</u>		
A	A	axial force
N	N	normal force
Y	Y	side force
m	LM	pitching moment
n	YN	yawing moment
l	BL	rolling moment



# NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
<u>[Y]</u> =		
1,2,3 4,5,6 sc bf	1,2,3 4,5,6 SC BF	areas associated with pressure taps 1 through 6 see figure 2b sting cavity area upper body flap area
$l_b$	LB	Orbiter reference body length, IML nose to $X_0 = 1528.3$ , in.
$\lambda_{REF}$	LREF	longitudinal reference length, Orbiter mean aerodynamic chord, in
	LU/DU	uncorrected lift to drag ratio, CLU/CDU
M	MACH	freestream Mach number
$\phi$	PHI	angular cylindrical coordinate position around Orbiter body - deg.
$P_i$	Pi	pressure at surface tap i, PSF
$P_\infty$	P	freestream static pressure, PSF
$P_t$	PT	freestream total pressure, PSF
q	Q	freestream dynamic pressure, PSF
	RN/L	unit Reynolds number, million per foot
S	SREF	wing reference area, ft <sup>2</sup>
$T_t$	TTR	freestream total temperature, °R
$X_{cp}$	XCP/L	center of pressure location referred to $l_b$
$X_0/L_0$	X/LB	longitudinal location of body surface, fraction of body length

# NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
X/C	X/CW	chordwise location on wing surface, fraction of local chord
X/C <sub>v</sub>	X/CV	chordwise location on vertical tail, fraction of local chord
n <sub>v</sub>	Z/BV	spanwise location on vertical tail, fraction of vertical tail span
n	2Y/BW	spanwise location on wing, fraction of semi span
X <sub>mrp</sub>	XMRP	longitudinal location of moment reference point
XT	XT	longitudinal moment transfer distance from Orbiter balance center to Orbiter MRC, in
Y <sub>mrp</sub>	YMRP	lateral location of moment reference point
Z <sub>T</sub>	ZT	vertical moment transfer distance from Orbiter balance center to Orbiter MRC, in
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
δ <sub>bf</sub>	BDFLAP	body flap deflection, degrees
δ <sub>eL</sub>	ELVN-L, L-ELVN	left elevon deflection, degrees
δ <sub>eR</sub>	ELVN-R, R-ELVN	right elevon deflection, degrees
δ <sub>r</sub>	RUDDER	rudder deflection, degrees
δ <sub>sb</sub>	SPDBRK	speed brake deflection, degrees
Z <sub>mrp</sub>	ZMRP	vertical location of moment reference point
	\$\$	mask character used to indicate all possible values for this test 01 through 85

## REMARKS

During the course of the test it was necessary to replumb the scani-valves. The resultant time loss necessitated deleting the priority 4 runs which incorporated the use of the metric vertical tail.

Data obtained from pressure taps 184, 296 and 347 are suspect due to slow leaks noticed while leak checking individual model pressure taps.

Body flap hinge moment data for datasets RE8001 through RE8005 have a -15% drift while datasets RE8006 and RE8007 have a +10% drift due to data recording system errors. System checks during the remainder of the test indicate a system error of less than 4% for body flap hinge moment data.

Rolling moment data has an approximate -.003 bias in the coefficient. The reason for this was not determined, but possible sources are fabrication tolerances and/or differential stiffness of the left and right elevon panels.

Distortion of the instrumented elevon shaft appears to have occurred around run 310 due to model assembly difficulties and the maximum loads encountered at these test conditions. A comparison of measured elevon deflection before and after the test with the nominal setting is presented below:

<u>Elevon Panel</u>	<u>Nominal</u>	<u>Pre-Test</u>	<u>Post-Test</u>
Inboard right	-10	-9° 36'	-8° 55'
	-4	-3° 34'	-2° 55'
	0	+0° 10'	+1° 02'
	4	+4° 26'	+4° 28'
	10	+10° 32'	+10° 39'
Outboard right	-10	-9° 36'	-8° 15'
	-4	-3° 34'	-2° 20'
	0	+0° 10'	+1° 05'
	4	+4° 26'	+3° 59'
	10	+10° 32'	+10° 18'

\* Inboard only was measured but was the same as outboard panel (see Ref 2)

## CONFIGURATION INVESTIGATED

The Rockwell International model 47-0 Space Shuttle Orbiter Vehicle was utilized in this test series. The model was originally constructed to -140A/B lines, but was modified prior to this test with the addition of the -140C OMS pods, six inch bevelled interpanel elevon gaps and uncovered RCS forward thruster parts. To denote these additions, the additional designations "C" (for -140C OMS pods) and "R" (for RCS thrusters) were added, and the slashes deleted for convenience on Table II (designated "-140 ABCR").

In data sets RE8069 to 085 the RCS thruster ports in the nose were filled reverting the configuration to -140A/B/C modified with body B<sub>26</sub>.

The following nomenclature denotes the model components:

<u>Component</u>	<u>Description</u>
B <sub>26</sub>	140A/B fuselage (VL70-000140A, VL70000140B)
B <sub>70</sub>	140A/B fuselage (VL70-000140A, VL70-000145, VL70-000140B, VL70-000143A, VL70-000139) with RCS thruster parts (VL70-08501, VL70-08502, VL70-08296)
C <sub>9</sub>	140A/B basic canopy (VL70-000140A, VL70-000143A)
E <sub>44</sub>	140A/B elevons (VL70-000200, VL70-006089, VL70-006092) with six inch bevelled interpanel gaps, no flipper door
F <sub>y</sub>	140A/B body flap (VL70-000140B, VL70-000200)
M <sub>16</sub>	OMS-RCS pods for 140C Orbiter
N <sub>28</sub>	OMS basic nozzles
R <sub>5</sub>	basic Orbiter rudder (VL70-000146A, VL70-000095)
V <sub>8</sub>	basic Orbiter vertical tail (VL70-000140A, VL70-000146A)
W <sub>116</sub>	basic 140A/B wing (VL70-000140B, VL70-000200)

CONFIGURATIONS INVESTIGATED (Concluded)

Designated configurations are:

-140ABCR  $\equiv$  B<sub>70</sub> C<sub>9</sub> E<sub>44</sub> F<sub>9</sub> M<sub>16</sub> N<sub>28</sub> R<sub>5</sub> V<sub>8</sub> W<sub>116</sub>

-140 ABC  $\equiv$  B<sub>26</sub> C<sub>9</sub> E<sub>44</sub> F<sub>9</sub> M<sub>16</sub> N<sub>28</sub> R<sub>5</sub> V<sub>8</sub> W<sub>116</sub>

## TEST FACILITY DESCRIPTION

The Ames Research Center Unitary Plan 11- by 11-Foot Transonic Wind Tunnel is a closed-circuit, air-medium, variable-density facility capable of attaining Mach numbers from 0.6 to 1.4 at Reynolds numbers from  $1.7 \times 10^6/\text{ft}$  to  $9.4 \times 10^6/\text{ft}$ . The test section is 22 feet long, and models are installed on internal strain-gauge balances mounted to sting-type support systems.

Shadowgraph and Schlieren photographic equipment is available, and pressure transducer instrumentation is provided.

Tunnel operating temperature is 580°R. Extended high Reynolds number runs are restricted by power availability.

## DATA REDUCTION

Standard NASA/Ames data reduction equations were used to reduce forces, moments, and pressures to coefficient form. Orbiter main balance force and moment coefficients were computed using the following equations:

<u>Symbol</u>	<u>Orbiter main balance measurement</u>
NF	Normal Force
AF	Axial Force
PM	Pitching Moment
YM	Yawing Moment
SF	Side Force
RM	Rolling Moment

$C_{A_u} = AF / (q S)$	$C_{L_u} = C_{N_u} \cos \alpha - C_{A_u} \sin \alpha$
$C_{N_u} = NF / (q S)$	$C_{D_u} = C_{N_u} \sin \alpha + C_{A_u} \cos \alpha$
$C_Y = SF / (q S)$	

$C_{m_u} = \frac{PM}{q S c} + \frac{C_A \cdot Z_T}{c} - \frac{C_N \cdot X_T}{c}$	
$C_x = \frac{RM}{q S b} + \frac{C_Y \cdot Z_T}{b}$	<u>Moment Transfer Distances</u>
$C_n = \frac{YM}{q S b} - \frac{C_Y \cdot X_T}{b}$	$X_T = 0.572 \text{ in.}$
	$Y_T = 0$
	$Z_T = 0.450 \text{ in.}$

The Moment Reference Center about which the data was reduced is located at

	<u>Orbiter (Full Scale)</u>
$X_0$	1076.68
$Y_0$	0
$Z_0$	375.00

Balance coefficients were grouped into datasets RE80\$\$.

## DATA REDUCTION (Continued)

Hinge moments and hinge moment coefficients were computed using the following equations:

Elevon hinge moments (inboard and outboard).

$$HM_{eI} = (HM1-HM2) (M1/D1) + HM1$$

$$HM_{eO} = (HM3-HM4) (M3/D3) + HM3$$

where

HM1 = measured moment on strain gage 1

D1 = distance between gages 1 and 2, .49335 in.

D3 = distance between gages 3 and 4, .45800 in.

M1 = moment transfer distance for inboard elevon, .93825 in.

M3 = moment transfer distance for outboard elevon, .92250 in.

Elevon hinge moment coefficients

$$\text{Inboard, } C_{HeI} = HM_{eI} / (q S_e c_e)$$

$$\text{Outboard, } C_{HeO} = HM_{eO} / (q S_e c_e)$$

$$\text{Total, } C_{HeTOT} = C_{HeI} + C_{HeO}$$

$S_e$  = elevon reference area, 0.189 ft.<sup>2</sup>

$c_e$  = elevon reference MAC, 2.721 in.

Body flap hinge moment coefficient

$$C_{Hbf} = HM_{bf} / (q S_{bf} c_{bf})$$

HM<sub>bf</sub> = measured body flap hinge moment

S<sub>bf</sub> = body flap reference area, 0.12834 ft.<sup>2</sup>



## DATA REDUCTION (Continued)

$c_{bf}$  = body flap reference MAC, 2.541 in.

Hinge moment coefficients are part of datasets RE8X\$\$.

Pressure coefficients for all model orifice pressure measurements were computed using this equation:

$$C_{p_i} = (P_i - P_\infty)/q$$

where  $P_i$  = pressure at model orifice  $i$

$P_\infty$  = tunnel static pressure

$q$  = tunnel dynamic pressure

Other data reduction constants include:

$S$  = wing reference area, 2.4210 ft.<sup>2</sup>

$c$  = wing reference chord, 14.2443 in.

$b$  = wing reference span, 28.1004 in.

After the data had been reduced to coefficient form by NASA/AMES, DMS interpolated it to nominal  $\alpha$ 's and  $\beta$ 's. Then 2 types of base and sting cavity area coefficients were calculated. When they are applied 3 types of balance coefficient data exists. These can be distinguished by the last subscript (symbolic name) or postfix (mnemonic name). The key is given below

- U ~ uncorrected coefficients.
- ~ coefficients with sting cavity pressure corrected to base pressure (without a suffix).
- F ~ forebody coefficients with the base area pressure corrected to freestream pressure.

### DATA REDUCTION (Continued)

Only the correction coefficients associated with base pressure tapes 1 through 4 were applied to the longitudinal orbiter coefficients.

Figure 2b illustrates the base area associated with each pressure tap. Alphabetic characters bf and sc designate body flap and sting cavity areas, respectively. Base area coefficient names have a numeric character which designates the pressure tap number. Base coefficients for vertical tail areas 5 and 6 were calculated but not applied to the total orbiter coefficients. Base area coefficient values are tabulated in the appendix. A detailed derivation of these coefficients follows. It is concluded by a matrix of base area geometric properties.

The orbiter sting cavity force and moment coefficients were computed as:

$$C_{A_{sc}} = \frac{(C_{p2} - C_{p1}) A_1}{S}$$

$$C_{N_{sc}} = \frac{(C_{p2} - C_{p1}) A_1 \tan 12.55^\circ}{S}$$

$$C_{m_{sc}} = C_{A_{sc}} \frac{Z_t}{c} - C_{N_{sc}} \frac{x_{sc}}{c}$$

The orbiter force and moment coefficients corrected for the difference between balance cavity pressure and orbiter base pressure:

$$C_A = C_{A_u} - C_{A_{sc}}$$

$$C_N = C_{N_u} - C_{N_{sc}}$$

$$C_m = C_{m_u} - C_{m_{sc}}$$

These orbiter coefficients are part of datasets KE80\$\$.

## DATA REDUCTION (Continued)

Orbiter base force and moment coefficients were calculated as follows:

Upper base area

$$C_{N2u} = -(C_{p2} A_{2u} \tan 16^\circ)/S$$

$$C_{A2u} = -(C_{p2} A_{2u})/S$$

$$C_{m2u} = \frac{C_{A2u} Z_{2u}}{c} - \frac{C_{N2u} X_{2u}}{c}$$

Lower base area

$$C_{N2l} = -(C_{p2} A_{2l} \tan 10^\circ)/S$$

$$C_{A2l} = -(C_{p2} A_{2l})/S$$

$$C_{m2l} = C_{A2l} \frac{Z_{2l}}{c} - C_{N2l} \frac{X_{2l}}{c}$$

Total base area,  $A_2$

$$C_{N2} = C_{N2u} + C_{N2l}$$

$$C_{A2} = C_{A2u} + C_{A2l}$$

$$C_{m2} = C_{m2u} + C_{m2l}$$

OMS pod base area,  $A_3$

(This assumes the surface is perpendicular to the orbiter X-axis)

$$C_{A3} = -(C_{p3} A_3)/S$$

$$C_{m3} = C_{A3} \frac{Z_3}{c}$$

OMS pod base area,  $A_4$

(This assumes the surface is perpendicular to the orbiter X-axis)

# DATA REDUCTION (Continued)

$$C_{A4} = -(C_{p4} A_4)/S$$

$$C_{m4} = C_{A4} \frac{Z_4}{c}$$

Coefficients for the above areas are grouped into datasets EE8D\$\$.

Upper surface of body flap

$$C_{A_{bf}} = \frac{-C_{p_{bf}} A_{bf}}{S} \sin (\delta_{bf} + 6.88^\circ)$$

$$C_{N_{bf}} = \frac{-C_{p_{bf}} A_{bf}}{S} \cos (\delta_{bf} + 6.88^\circ)$$

$$C_{m_{bf}} = \frac{C_{A_{bf}} Z_{bf}}{c} - \frac{C_{N_{bf}} X_{bf}}{c}$$

where:

$$C_{p_{bf}} = \frac{C_{p200} + C_{p201} + C_{p204} + C_{p205}}{4}$$

The orbiter force and moment coefficients adjusted to free stream pressure (forebody coefficients).

$$C_{A_F} = C_{A_U} - \left( \frac{-C_{p1} A_1}{S} + \sum_{i=2}^4 C_{A_i} + C_{A_{bf}} \right)$$

$$C_{N_F} = C_{N_U} - (C_{N2} + C_{N_{bf}})$$

$$C_{m_F} = C_{m_U} - \left( \sum_{i=2}^4 C_{m_i} + C_{m_{bf}} \right)$$

These orbiter coefficients are part of datasets KE80\$\$.

Vertical tail "undercarriage" area,  $A_5$

Top Segment:

$$C_{N5t} = (C_{p5} A_{5t} \tan 63.75^\circ)/S$$

DATA REDUCTION (Continued)

$$C_{A5t} = - (C_{p5} A_{5t})/S$$

$$C_{m5t} = C_{A5t} \frac{Z_{5t}}{c} - C_{N5t} \frac{X_{5t}}{c}$$

Middle Segment:

$$C_{N5m} = (C_{p5} A_{5m} \tan 26.1426^\circ)/S$$

$$C_{A5m} = - (C_{p5} A_{5m})/S$$

$$C_{m5m} = C_{A5m} \frac{Z_{5m}}{c} - C_{N5m} \frac{X_{5m}}{c}$$

Bottom Segment:

$$C_{N5b} = (C_{p5} A_{5b} \tan 21.94^\circ)/S$$

$$C_{A5b} = - (C_{p5} A_{5b})/S$$

$$C_{m5b} = C_{A5b} \frac{Z_{5b}}{c} - C_{N5b} \frac{X_{5b}}{c}$$

Total area,  $A_5$ :

$$C_{N5} = C_{N5t} + C_{N5m} + C_{N5b}$$

$$C_{A5} = C_{A5t} + C_{A5m} + C_{A5b}$$

$$C_{m5} = C_{m5t} + C_{m5m} + C_{m5b}$$

Vertical Tail base area,  $A_6$ :

Segment above rudder

$$C_{N6u} = (C_{p6} A_{6u} \tan 63.75^\circ)/S$$

$$C_{A6u} = (C_{p6} A_{6u})/S$$

$$C_{m6u} = C_{A6u} \frac{Z_{6u}}{c} - C_{N6u} \frac{X_{6u}}{c}$$

# DATA REDUCTION (Continued)

Rudder/Speed brake base:

$$C_{A6l} = C_{p6} A_{6l} [\sin (\theta - 55.1667^\circ) \cos 55.1667^\circ + \cos (\theta - 55.1667^\circ) \sin 55.1667^\circ \cos (\delta r)]/S$$

$$C_{N6l} = C_{p6} A_{6l} [\sin (\theta - 55.1667^\circ) \sin 55.1667^\circ - \cos (\theta - 55.1667^\circ) \cos 55.1667^\circ \cos (\delta r)]/S$$

$$C_{Y6l} = C_{p6} A_{6l} \cos (\theta - 55.1667^\circ) \sin \delta r/S$$

$$C_{m6l} = [C_{A6l} (Z_{6l}) - C_{N6l} (X_{6l})]/c$$

$$C_{l6l} = [C_{Y6l} (Z_{6l})]/b$$

$$C_{n6l} = -[C_{Y6l} (X_{6l})]/b$$

$$\theta = \tan^{-1} \left[ \frac{5.456791 + .573209 \cos \left( \frac{\delta_{SB}}{2} \right)}{3.797715 - .823715 \cos \left( \frac{\delta_{SB}}{2} \right)} \right]$$

$$A_{6l} = A_{6l} / \sin \theta$$

Total area,  $A_6$ :

$$C_{A6} = C_{A6u} + C_{A6l}$$

$$C_{N6} = C_{N6u} + C_{N6l}$$

$$C_{Y6} = C_{Y6l}$$

$$C_{m6} = C_{m6u} + C_{m6l}$$

$$C_{l6} = C_{l6l}$$

$$C_{n6} = C_{n6l}$$

Vertical tail area coefficient data are grouped into datasets GE8D\$.

# DATA REDUCTION (Continued)

## BASE GEOMETRIC PROPERTIES MATRIX

Description	Sub-script	Area A - ft. <sup>2</sup>	Distance between Centroid and MRC	
			vertical Z - in.	longitudinal X - in.
Sting cavity	sc	0.076699	0.45	12.199
Body flap upper surface	bf	0.128	- 2.64	13.659
Orbiter balance cavity	1	0.076699	0.45	12.199
Orbiter base orifice 2 lower	2l	0.133889	- 1.32	12.617
Orbiter base orifice 2 upper	2u	0.0818055	2.07	12.384
Lower OMS pod	3	0.030472	2.68	NA
Upper OMS pod	4	0.074166	3.63	NA
Vertical tail "undercarriage" bottom	5b	0.003565	4.612	12.395
Vertical tail "undercarriage" middle	5m	0.002610	5.336	14.079
Vertical tail "undercarriage" top	5t	0.000341	5.97	15.185
Vertical tail above rudder	6u	0.000798	12.656	18.482
Base area of speed brake	6s	Varies with speed brake deflection		

NOTES: Sting cavity and Orbiter balance cavity are synonymous.

NA - not applicable.

# DATA REDUCTION (Continued)

<u><math>\delta_{sb}</math></u>	<u><math>A_{6L}</math> ft<sup>2</sup></u>
0	0.0066036
25	0.0456000
35	0.0621000
55	0.0950800
85	0.1551400

$$X_{6L} = 15.045 + 1.442277 [1 - \cos (\delta_{sb}/2)]$$

$$Z_{6L} = 9.755 + 0.501827 [1 - \cos (\delta_{sb}/2)]$$

Standard DMS loads cycle test procedures were used to process the OA148 pressure data. First numerous pressure distribution plots were released. Analysis of these produced bad pressure data list. This list is reproduced below:



# DATA REDUCTION (Continued)

## OA148 Bad Pressure Data

<u>Component</u>	<u>Dataset No.</u>	<u>Tap No.</u>	<u>B</u>	<u>A</u>
Fuselage (B)	1	143	4	-4
	1	148	4	-4
	1	150	4	-4
	1	152	4	-4
	1	186	4	-4
	1	187	4	-4
	1	189	4	-4
	1	191	4	-4
	1	193	4	-4
Lower Wing (L)	1 → 7	231	ALL	ALL
	1 → 85	290	ALL	ALL
	1	316	4	-4
	1	317	4	-4
	1	337	4	-4
	1	338	4	-4
	1	358	4	-4
	1	378	4	-4
	1	379	4	-4
	1	398	4	-4
Upper Wing (U)	1 → 7	247	ALL	ALL
	1	357	4	-4
Body Flap (F)	24	205	-4	12
Speed Brake (K)	1 → 85	822	ALL	ALL
Vertical Tail (V)	8	443	ALL	ALL
	ALL	1444	ALL	ALL
	79	1453	-4	-4
	79	1454	-4	-4

Note: Wind tunnel pressure data tabulated in the appendix have the original bad data values.

## DATA REDUCTION (Continued)

These points were eliminated from further processing. The remaining data were interpolated to nominal alpha and beta values. Processing was completed with the release of a magnetic tape containing the final interpolated pressure coefficients.

This report contains plots and tabular listings for both force and pressure data. Plotted force data illustrates lateral-directional, longitudinal and hinge moment characteristics of the configuration tested. Plotted pressure data illustrates the effect of several control deflections and attitude changes on local pressure distributions. The multiple volume appendix contains a tabulated listing of the basic force and pressure data. Listing of the interpolated base area coefficients is also included. The plotted and tabulated data are arranged in the following manner:

VOLUME NO.	CONTENTS
1	Force data plots showing lateral-directional longitudinal and hinge moment characteristics.
2	Plots illustrating the effect of control surface deflections on fuselage, wing and vertical tail pressure distributions.

# DATA REDUCTION (Concluded)

VOLUME  
NO.

## CONTENTS

3

### Tabulated Force Data

<u>Dataset</u>	<u>Data type</u>
RE80\$\$	source balance coefficients
RE8X\$\$	source hinge moment coefficients
RE8Y\$\$	source base pressure coefficients
KE80\$\$	interpolated balance coefficients adjusted for cavity pressure and forebody coefficients
EE8D\$\$ FE8D\$\$	interpolated base and cavity area coefficients
GE8D\$\$	interpolated vertical tail base area coefficients

### Tabulated Pressure Data

	<u>Component</u>	<u>Fourth Character*</u>	<u>Page</u>
4, 5	orbiter fuselage	B	1
6,7,8	lower wing	L	1271
9,10,11	upper wing	U	3147
12	upper body flap	F	5405
12	lower body flap	G	5774
13	speed brake	K	6143
13	vertical tail	V	6547

\* The fourth character in each dataset identifier (i.e., XE8BXX, B for Fuselage) represents the individual component.

## REFERENCES

1. SD75-SH-0106, "Pretest Information for OA148 of the 0.03-Scale 47-0 Pressure Loads Space Shuttle Model in the 11 x 11 Foot Leg of the NASA/ARC Unitary Plan Wind Tunnel," April 18, 1975.
2. MG-75-07-11, Rockwell International Corporation Internal Letter: "Model design Dimensional Varification Task 36: Elevon Deflection Angle Check of the 0.03-Scale SSV Model 47-0 (140A/B Configuration)". SWS/WT0/75-283, July 29, 1975.

### TABLE I

[illegible]



TABLE II - Continued.

TEST: OA 148		DATA SET RUN NUMBER COLLATION SUMMARY												DATE: POST TEST	
DATA SET IDENTIFIER	CONFIGURATION	TEST RUN NUMBER												MACH NUMBERS	
		$\alpha$	$\beta$	$\gamma$	$\delta$	$\epsilon$	$\zeta$	$\eta$	$\theta$	$\iota$	$\kappa$	$\lambda$	$\mu$	$\nu$	$\xi$
RE8013	-140 ABCR	B	D	0	35	0	0	0	97	98	99	100	101	102	1.4
014		A	D						103	104	105	106	107		1.25
015		A	D						108	109	110	111	112		1.1
016		A	D						113	114	115	116	117		0.9
017		A	C						118	119	120	121	122		0.6
018	-140 ABCR	B	D	0	0	-117	0	0	123	124	125	126	127	128	1.4
019		A	D						131	129	130	132	133		1.25
020		A	D						134	135	136	137	138		1.1
021		A	D						139	140	141	142	143		0.9
022		A	C						144	145	146	147	148		0.6
023	-140 ABCR	B	D	0	0	0	0	0	149	150	151	152	153	154	1.4
024		A	D						155	156	157	158	159		1.25
025		A	D						160	161	162	163	164		1.1
026		A	D						165	166	167	168	169		0.9
027		A	C						170	171	172	173	174		0.6
		7	13	19	25	31	37	43	49	55	61	67	73	79	
		COEFFICIENTS												IDVAR (1)	IDVAR (2)
		SCHEDULES												NDV	

TABLE II. - Continued.

TEST: OA '48		DATA SET/RUN NUMBER COLLATION SUMMARY															DATE: Post Test	
DATA SET IDENTIFIER	CONFIGURATION	TEST RUN NUMBER															MACH NUMBERS	
		$\alpha$																
		$\alpha$	$\beta$	$\delta$	$\delta_1$	$\delta_2$	$\delta_3$	$\delta_4$	$\delta_5$	$\delta_6$	-4	0	4	8	12	16		
R28028	140 ABCR	B	D	-40	35	163	10	0	175	176	177	178	179	180			1.4	
029		A	D						181	182	183	184	185				1.25	
030		A	D						186	187	188	189	190				1.1	
031		A	D						191	192	193	194	195				0.9	
032		A	C						196	197	198	199	200				0.6	
033	140 ABCR	B	D	-40	35	163	0	10	201	202	203	204	205	206			1.4	
034		A	D						207	208	209	210	211				1.25	
035		A	D						212	213	214	215	216				1.1	
036		A	D						217	218	219	220	221				0.9	
037		A	C						222	223	224	225	226				0.6	
038	140 ABCR	B	D	-40	85	163	10	10	227	228	229	230	231	232			1.4	
039		A	D						233	234	235	236	237				1.25	
040		A	D						238	239	240	241	242				1.1	
041		A	D						243	244	245	246	247				0.9	
042		A	C						248	249	250	251	252				0.6	
		COEFFICIENTS															IDVAR (1) IDVAR (2) IDV	
		7	13	19	25	31	37	43	49	55	61	67	73	79	85	91		
		SCHEMULES																
		OR A																

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**TABLE II. - Continued.**

TEST: OA 14B		DATA SET RUN NUMBER COLLATION SUMMARY										DATE: Post TEST	
DATA SET IDENTIFIER	CONFIGURATION	TEST RUN NUMBER										MACH NUMBERS	
		A	B	C	D	E	F	G	H	I	J	K	L
043	140 ABCR	A	D	O	SS	SS	SS	SS	SS	SS	SS	SS	0.9
044		A	C										0.6
045	140 ABCR	A	D	O	SS	SS	SS	SS	SS	SS	SS	SS	0.9
046		A	C										0.6
047	140 ABCR	B	D	-10	BS	BS	BS	BS	BS	BS	BS	BS	1.4
048		A	D										1.25
049		A	D										1.1
050		A	D										0.9
051		A	C										0.6
052	140 ABCR	B	D	-10	BS	BS	BS	BS	BS	BS	BS	BS	1.4
053		A	D										1.25
054		A	D										1.1
055		A	D										0.9
056		A	C										0.6

7 13 19 25 31 37 43 49 55 61 67 73 79

TEST RUN NUMBER

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

COEFFICIENTS

OR  $\beta$

SCHEDULES

TABLE II. - Continued.

TEST: OA 148		DATA SET/RUN NUMBER COLLATION SUMMARY												DATE: POST TEST	
DATA SET IDENTIFIER	CONFIGURATION	TEST RUN NUMBERS												MACH NUMBERS	
		16	8R	83B	88F	88L	88R	-4	0	4	8	12	16		
REB057	-140ABCRC	B D	10	55	16.3	A	-4	325	326	327	328	329	330	1.4	
058		A D						331	332	333	334	335		1.25	
059		A D						336	337	338	339	340		1.1	
060		A D						340	342	343	344	345		0.9	
061		A C						346	347	348	349	350		0.6	
062	-140ABCRC	B D	+5	55	16.3	-4	-4	351	352	353	354	355	356	1.4	
063		A D						357	358	359	360	361		1.25	
064		A D						362	363	364	365	366		1.1	
065		A D						367	368	369	370	371		0.9	
066		A C						372	373	374	375	376		0.6	
067	-140ABCRC	A D	0	55	22.5	-4	-4	377	378	379	380	381		0.9	
068		A C						382	383	384	385	386		0.6	
069	-140ABCRC	A D	0	55	22.5	-10	-10	387	388	389	390	391		0.9	
070		A C						392	393	394	395	396		0.6	
		COEFFICIENTS												IDVAR (1) IDVAR (2) NDV	
G OR B SCHEDULES		7	13	19	25	31	37	43	49	55	61	67	73		

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**TABLE II. - Concluded.**

TEST: 0A148		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: POST TEST			
DATA SET IDENTIFIER	CONFIGURATION	TEST RUN NUMBER										MACH NUMBERS			
		A	B	C	D	E	F	G	H	I	J				
071	-140 ABC	B	D	-5	55	6.3	-10	-10	397	398	399	400	401	402	1.4
072		A	D						403	404	405	406	407		1.25
073		A	D						408	409	410	411	412		1.1
074		A	D						413	414	415	416	417		0.9
075		A	C						418	419	420	421	422		0.6
076	-140 ABC	B	D	-10	0	-11.7	+10	-10	423	424	425	426	427	428	1.4
077		A	D						429	430	431	432	433		1.25
078		A	D						434	435	436	437	438		1.1
079		A	D						439	440	441	442	443		0.9
080		A	C						444	445	446	447	448		0.6
081	-140 ABC	B	E	10	0	-11.7	+10	+10	449	450	451	452	453	454	1.4
082		A	E						455	456	457	458	459		1.25
083		A	E						460	461	462	463	464		1.1
084		A	F						465	466	467	468	469		0.9
085		A	O						470	471	472	473	474		0.6
TEST RUN NUMBER															
7 13 19 25 31 37 43 49 55 61 67 73 79															
OR 8 SCHEDULES															
FA = 00 α = -40816															
-4040 α = 412															
10VAR 11 10VAR 12 10VAR 13															
67 61 55 49 43 37 31 25 19 13 7															
FA = 00 α = -40816															
-4040 α = 412															

TABLE III  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B<sub>26</sub>

GENERAL DESCRIPTION : Configuration 140A/B orbiter fuselage

NOTE: B<sub>26</sub> is identical to B<sub>21</sub>, except underside of fuselage has been  
refaired to accept W<sub>116</sub>.

MODEL SCALE: 0.030 MODEL DRAWING: SS-A00147, Release 12

DRAWING NUMBER : VL70-000143B, -000200, -000205, -006089, -000145,  
VL70-000140A, -000140B

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (OML: Fwd Sta. X <sub>0</sub> =235), In.	1293.3	38.799
Length (IML: Fwd Sta X =238), In.	1290.3	38.709
Max Width (@ X <sub>0</sub> = 1528.3), In.	264.0	7.920
Max Depth (@ X <sub>0</sub> = 1464), In.	250.0	7.500
Fineness Ratio	0.264	0.264
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	340.88	0.3068
Planform		
Wetted		
Base		

TABLE III (Continued)

MODEL COMPONENT : BODY - B<sub>70</sub>

GENERAL DESCRIPTION : Configuration 140A/B orbiter fuselage with forward fuselage RCS thruster ports, otherwise B<sub>70</sub> is identical to B<sub>26</sub>.

MODEL SCALE: 0.030

DRAWING NUMBER : VL70-000140A, -000140B, -000143B, -000145, -000200, VL70-000205, -006089, -008501, -008502, -008296

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length (OML: Fwd Sta X <sub>0</sub> =235), In.	1293.3	38.799
Length (IML: Fwd Sta X <sub>0</sub> =238), In.	1290.3	38.709
Max Width (@ X <sub>0</sub> = 1528.3), In.	264.0	7.920
Max Depth (@ X <sub>0</sub> = 1464), In.	250.0	7.500
Fineness Ratio	0.264	0.264
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	340.88	0.3068
Planform		
Wetted		
Base		

TABLE III (Cont'd)

MODEL COMPONENT : CANOPY - C<sub>9</sub>

GENERAL DESCRIPTION : Configuration 3A. Canopy used with fuselage  
B<sub>26</sub>.

MODEL SCALE: 0.030 MODEL DWG: SS-A00147, Release 12

DRAWING NUMBER : VL70-000143A

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_0 = 434.643$ to $578$ ), In.	<u>143.357</u>	<u>4.301</u>
Max Width (@ $X_0 = 513.127$ ), In.	<u>152.412</u>	<u>4.572</u>
Max Depth (@ $X_0 = 485.0$ ), In.	<u>25.00</u>	<u>0.750</u>
Fineness Ratio	<u>                    </u>	<u>                    </u>
Area	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>                    </u>	<u>                    </u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>

TABLE III (Cont'd)

MODEL COMPONENT	<u>ELEVON - E<sub>11</sub></u>
GENERAL DESCRIPTION	<u>6.0 In. F.S. gaps machined into E<sub>26</sub> elevon.</u> <u>Flipper doors centerbody pieces, and tipseals are not simulated.</u> <u>(Data are for one of two sides.)</u>
MODEL SCALE:	<u>0.030</u>
DRAWING NUMBER	<u></u>

DIMENSIONS	FULL SCALE	MODEL SCALE
Area - Ft <sup>2</sup>	<u>210.0</u>	<u>0.189</u>
Span (equivalent) , In.	<u>349.2</u>	<u>10.476</u>
Inb'd equivalent chord, In.	<u>118.0</u>	<u>3.54</u>
Outb'd equivalent chord , In.	<u>55.19</u>	<u>1.656</u>
Ratio movable surface chord/ total surface chord	<u></u>	<u></u>
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees	<u></u>	<u></u>
Leading Edge	<u>0.00</u>	<u>0.00</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.0</u>	<u>0.0</u>
(Product of Area & $\bar{c}$ ) <sub>3</sub>	<u></u>	<u></u>
Area Moment (about leading edge), Ft <sup>3</sup>	<u>1567.25</u>	<u>0.0429</u>
Mean Aerodynamic Chord, In.	<u>90.7</u>	<u>2.721</u>

TABLE III (Cont'd)

MODEL COMPONENT : BODY FLAP - F<sub>0</sub>GENERAL DESCRIPTION : Configuration 140A/BMODEL SCALE: 0.030DRAWING NUMBER : VL70-000140B, -000200

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (Chord), In.	<u>84.7</u>	<u>2.541</u>
Max Width , In.	<u>262.308</u>	<u>7.869</u>
Max Depth , In.	<u>23.00</u>	<u>0.690</u>
Fineness Ratio	<u></u>	<u></u>
Area - Ft <sup>2</sup>	<u></u>	<u></u>
Max. Cross-Sectional	<u></u>	<u></u>
Planform	<u>142.60</u>	<u>0.128</u>
Wetted	<u></u>	<u></u>
Base	<u>41.90</u>	<u>0.0377</u>



TABLE III (Cont'd)

MODEL COMPONENT : OMS POD - M<sub>16</sub>

GENERAL DESCRIPTION : Configuration 140C orbiter OMS pod - short pod.  
External contour is to referenced drawings with 1/2" added to simulate  
TPS.

MODEL SCALE: 0.015

DRAWING NUMBER : VL70-008401, -008410

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta $X_0 = 1310.5$ ), In.	<u>258.50</u>	<u>7.755</u>
Max Width (@ $X_0 = 1511$ ), In.	<u>136.8</u>	<u>4.104</u>
Max Depth (@ $X_0 = 1511$ ), In.	<u>74.70</u>	<u>2.241</u>
Fineness Ratio	<u>2.484</u>	<u>2.484</u>
Area - Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>58.865</u>	<u>0.053</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III (Cont'd)

MODEL COMPONENT: ~~OMS~~ ~~OMS~~ NOZZLES - N<sub>28</sub>

GENERAL DESCRIPTION: Configuration 140A/B orbiter OMS nozzles

MODEL SCALE: 0.030

DRAWING NUMBER: VL70-000140A (Location), SS-A00106, Release 9 (Contour)

DIMENSIONS:	FULL SCALE	MODEL SCALE
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter - In.		
Exit		
Throat		
Inlet		
Area - ft <sup>2</sup>		
Exit		
Throat		
Gimbal Point (Station) - In.		
Left      Nozzle		
X <sub>0</sub>	<u>1518.0</u>	<u>45.54</u>
Y <sub>0</sub>	<u>- 88.0</u>	<u>- 2.64</u>
Z <sub>0</sub>	<u>492.</u>	<u>14.76</u>
Right      Nozzles		
X <sub>0</sub>	<u>1518.0</u>	<u>45.54</u>
Y <sub>0</sub>	<u>88.0</u>	<u>2.64</u>
Z <sub>0</sub>	<u>492.0</u>	<u>14.76</u>
Null Position - Deg.		
Left      Nozzle		
Pitch	<u>15°49'</u>	<u>15°49'</u>
Yaw	<u>12°17'</u>	<u>12°17'</u>
Right      Nozzle		
Pitch	<u>15°49'</u>	<u>15°49'</u>
Yaw	<u>12°17'</u>	<u>12°17'</u>

TABLE III (Cont'd)

MODEL COMPONENT RUDDER - R<sub>5</sub>

GENERAL DESCRIPTION Configuration 140C orbiter rudder (identical to configuration 140A/B rudder).

MODEL SCALE: 0.030

DRAWING NUMBER VL70-000146B, -000095

DIMENSIONS	FULL SCALE	MODEL SCALE
Area - Ft <sup>2</sup>	<u>100.15</u>	<u>0.090</u>
Span (equivalent), In.	<u>201.00</u>	<u>6.030</u>
Inb'd equivalent chord, In.	<u>91.585</u>	<u>2.748</u>
Outb'd equivalent chord, In.	<u>50.833</u>	<u>1.525</u>
Ratio movable surface chord/ total surface chord	<u>          </u>	<u>          </u>
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees	<u>          </u>	<u>          </u>
Leading Edge	<u>34.83</u>	<u>34.83</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
(Product of area & $\bar{c}$ )	<u>          </u>	<u>          </u>
Area Moment (Non-dimensional), Ft <sup>3</sup>	<u>610.92</u>	<u>0.0165</u>
Mean Aerodynamic Chord, In.	<u>73.2</u>	<u>2.196</u>

TABLE III (Cont'd)

MODEL COMPONENT: VERTICAL - V<sub>g</sub>GENERAL DESCRIPTION: Configuration 140C orbiter vertical tail.(Identical to configuration 140A/B vertical tail.)MODEL SCALE: 0.030DRAWING NUMBER: VL70-000140C, -000146B

## DIMENSIONS:

FULL SCALEMODEL SCALE

## TOTAL DATA

Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.253</u>	<u>0.372</u>
Span (Theo) - In.	<u>315.72</u>	<u>9.472</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
0.25 Element Line	<u>41.13</u>	<u>41.13</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>8.055</u>
Tip (Theo) WP	<u>108.47</u>	<u>3.254</u>
MAC	<u>199.81</u>	<u>5.994</u>
Fus. Sta. of .25 MAC	<u>1463.35</u>	<u>43.901</u>
W.P. of .25 MAC	<u>635.52</u>	<u>19.066</u>
B.L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.0</u>	<u>10.0</u>
Trailing Wedge Angle - Deg.	<u>14.92</u>	<u>14.92</u>
Leading Edge Radius	<u>2.0</u>	<u>0.060</u>
Void Area	<u>13.17</u>	<u>0.0019</u>
Blanketed Area	<u>0.0</u>	<u>0.0</u>

TABLE III (Conl'd)

MODEL COMPONENT: WING-W<sub>16</sub>GENERAL DESCRIPTION: Configuration 4NOTE: Identical to W<sub>11</sub>, except airfoil thickness. Dihedral angle is along trailing edge of wing.MODEL SCALE: 0.030

TEST NO.

DWG. NO. VL70-000140A, -000200DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATAArea (Theo.) Ft<sup>2</sup>

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

EXPOSED DATAArea (Theo) Ft<sup>2</sup>

Span, (Theo) In. BP108

Aspect Ratio

Taper Ratio

Chords

Root BP108

Tip 1.00  $\frac{b}{2}$ 

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root  $\frac{b}{2}$  =Tip  $\frac{b}{2}$  =

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area Ft<sup>2</sup>

Leading Edge Intersects Fus M. L. @ Sta

Leading Edge Intersects Wing @ Sta

TABLE IV.

## FUSELAGE PRESSURE TAP LOCATIONS -

ORDINATE IN.		$\Phi$ RADIAL LOCATION ~ DEGREES																	
Full	$X_c/L_c$	0	20	40	55	70	90	105	110	120	135	140	150	151	156	162	169	174	180
235	7.05	0	7																1
245	7.35	0.08	8				9											10	3
265	7.95	.023	11	12	13	14	15	16		17			18					19	9
295	9.85	.046		24	25	26	27	28		29			30					31	8
325	9.75	.070		36	37	38	39	40		41			42					43	8
330	11.40	.112	47	48	49	50	51	52		53			54					55	9
440	13.20	.158															59		1
450	13.50	.166	60	61	62	63	64	65		66			67				68	69	10
465	13.95	.177												73	74				2
500	15.00	.204	75	76	77	78	79	80		81		82	83			84		85	11
560	16.80	.251	89		90		91	92		93			94			95		96	8
625	18.75	.301	98		99		100	101		102			103			104		105	8
725	21.75	.378	107		108		109	110		111			112			113		114	8
880	26.40	.497	116		117		118	119		120			121			122		123	8
980	29.40	.574	125		126														2
1080	32.40	.652	128		129					132						134		135	8
1180	35.40	.729	137		138					141								143	7

TABLE IV. - Concluded.

FUSELAGE PRESSURE TAP LOCATIONS

Orbiter-M		$\Phi$ RADIAL LOCATION ~ DEGREES																								
		X <sub>i</sub> /L <sub>0</sub>	0	20	40	55	70	90	105	110	120	135	140	150	151	156	162	165	169	174	180	307	320	340	345	345
Full	Model																									
1245	37.35	779	145	146			147	148	149		150	151		152			153			154					10	10
1300	39.0	821	157	157		158	159	160		161	162		163						164						9	19
1375	41.25	879	166	167		168	169	170		171	172		173			174									9	28
1430	42.9	921	176	177		178	179	180		181	182		183			184									9	37
1480	44.4	960	186	187		188	189	190		191	192		193			194									9	46
1530	45.9	999								196	197														4	50
										198	199															

TABLE V.

Y	Y <sub>6</sub>	LEFT WING PRESSURE TAP LOCATIONS																No Taps	Σ No Taps
		X/C	C	.041	.113	.207	.429	.547	.633	.727	.793								
.235	110	TOP	208	209	210	211	212	213	214	215	216							9	9
		BOT	—	—	—	—	—	—	—	—	—							0	
		X/C	C	.010	.020	.090	.094	.229	.362	.497		.700	.834	.865	.900	.965			
.289	140	TOP	217	218	219	220	221	222	223	224		.225	.226	.227	.228	.229		13	34
		BOT		230	231	232	233	234	235	236		.237	.238	.239	.240	.241		12	
		X/C	C	.010	.020	.040	.086	.163	.246	.390		.637	.798	.839	.879	.919	.955		
.364	170	TOP	242	243	244	245	246	247	248	249		.250	.251	.252	.253	.254	.255	14	61
		BOT		256	257	258	259	260	261	262		.263	.264	.265	.266	.267	.268	13	
		X/C	C	.010	.020	.040	.083	.177	.274	.402	.545	.760	.808	.857	.905	.953	1.00		
.427	200	TOP	269	270	271	272	273	274	275	276	.277	.278	.279	.280	.281	.282		14	89
		BOT		283	284	285	286	287	288	289	.290	.291	.292	.293	.294	.295	.296	14	
		X/C	C	.010	.020	.050	.080	.150	.250	.400	.530	.725	.850	.900	.950	.980			
.534	250	TOP	297	298	299	300	301	302	303	304	305	306	307	308	309	310		14	116
		BOT		311	312	313	314	315	316	317	318	319	320	321	322	323		13	
		X/C																	



TABLE V. - Concluded.

N		Y <sub>0</sub>		LEFT WING PRESSURE TAP LOCATIONS																N <sub>0</sub>	Σ N <sub>0</sub>
		1/2	0	.010	.020	.030	.040	.050	.060	.070	.080	.090	.100	.110	.120	.130	.140				
641	300	TOP																	3		
	BOT																		4		
673	345	1/2	0	.010	.020	.030	.040	.050	.060	.070	.080	.090	.100						9		
	TOP	324	325	326	327	328	329	330	331	332								8			
780	365	1/2	0	.010	.020	.030	.040	.050	.060	.070	.080	.090							10		
	TOP	348	349	350	351	352	353	354	355	356	357							9			
887	415	1/2	0	.010	.020	.030	.040	.050	.060	.070	.080	.090							10		
	TOP	367	368	369	370	371	372	373	374	375	376							9			
972	495	1/2	0	.020	.030	.040	.050	.060	.070	.080	.090	.100							10		
	TOP	387	388	389	390	391	392	393	394									8			
10	443	1/2	.443																7		
	TOP	402	403															2			

TABLE VI.

ORBITER VERTICAL TAIL & SPEED BRAKE  
PRESSURE TAP LOCATIONS

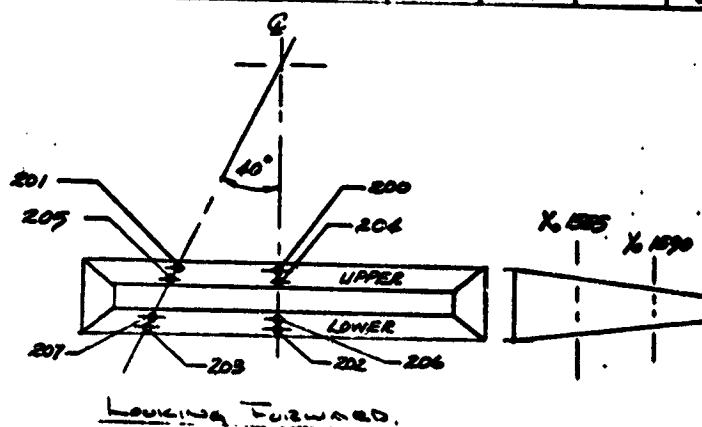
VERTICAL (LN ONLY)		X/CV												
Z <sub>0</sub> FULL SCALE	Z <sub>0</sub> MODEL SCALE	71	0	.025	.05	.15	.30	.52	.685	.775	.90	NO TAPS	Σ NO TAPS	
550	16.5	.153	430	431	432	433	434	435	436	437		8	8	
600	18.0	.316	438	439	440	441	442	443	444	445	446	9	17	
645	19.35	.458							444	445	446	3	20	
690	20.70	.600	447	448	449	450	451	452	453	454	455	9	29	
720	21.6	.720							453	454	455	3	32	
765	22.95	.840	456	457	458	459	460	461	462	463	464	9	41	
792	23.76	.915	465	466	467	468	469	470	471	472	473	9	50	

SPEED BRAKE (R.H.)		X/SCV									
Z <sub>0</sub> FULL SCALE	Z <sub>0</sub> MODEL SCALE	71/58	.10	.25	.40	.65	.90	NO TAPS	Σ NO TAPS		
600	18.0	.110	801	802	803	804	805	5	5		
630	18.9	.254	806	807	808	809	810	5	10		
666	19.8	.407	811	812	813	814	815	5	15		
690	20.7	.567	816	817	818	819	820	5	20		
720	21.6	.706	821	822	823	824	825	5	25		
750	22.5	.856	826	827	828	829	830	5	30		

TABLE VII.

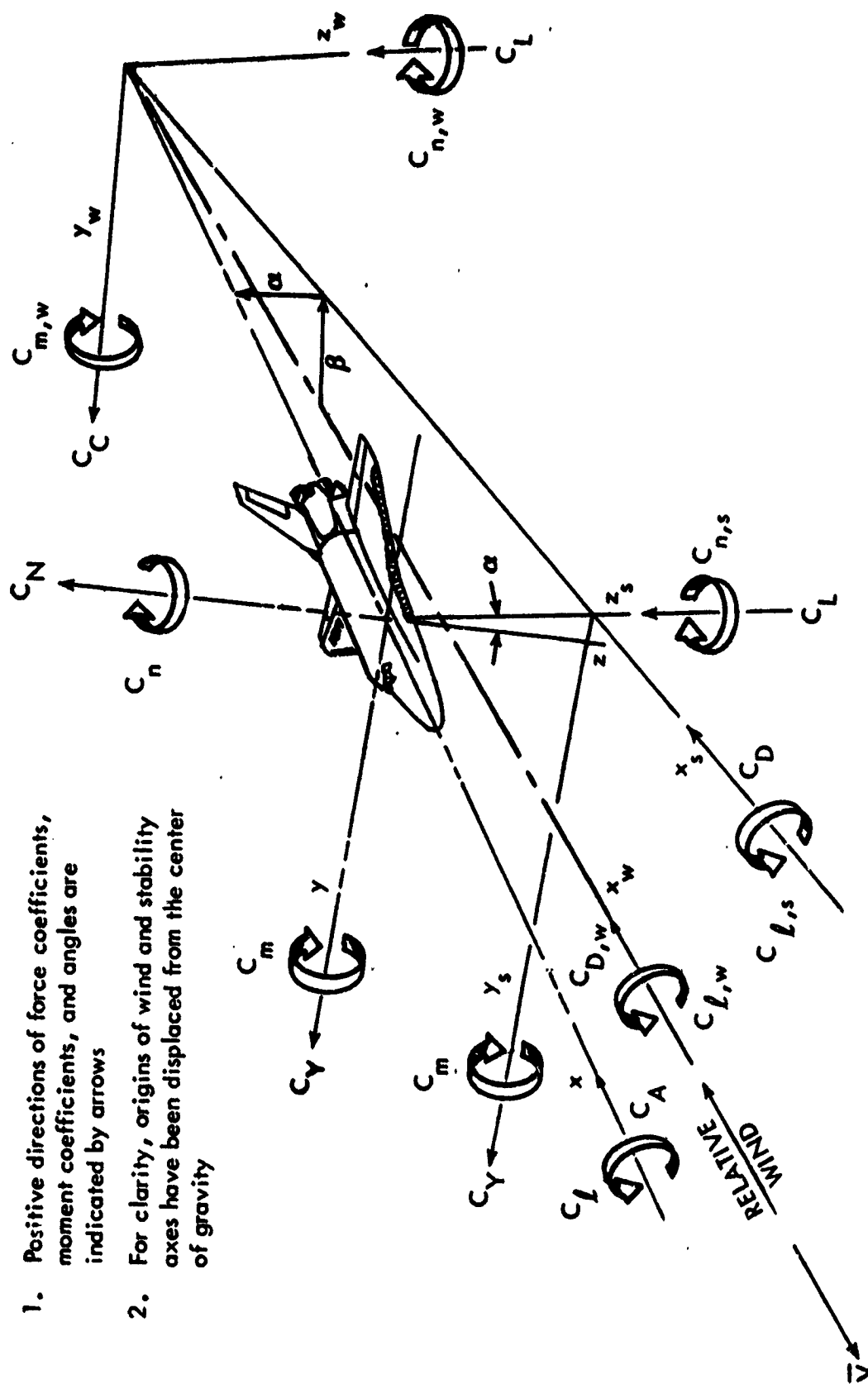
BODYFLAP PRESSURE TAP LOCATIONS

ORBITER - $X_0$			$\phi$ - DEGREES		No. TAPS	$\Sigma$ No TAPS
FULL SCALE	MODEL SCALE	$X_0/L_0$	0	40		
1535 U	46.65	1.018	200	201	2	2
1535 L	46.65	1.018	202	203	2	4
1590 U	47.70	1.046	204	205	2	6
1590 L	47.70	1.046	206	207	2	8



# Notes

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

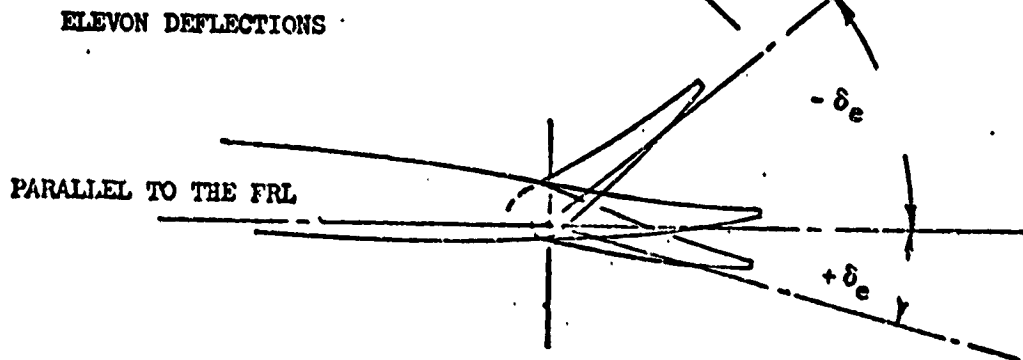
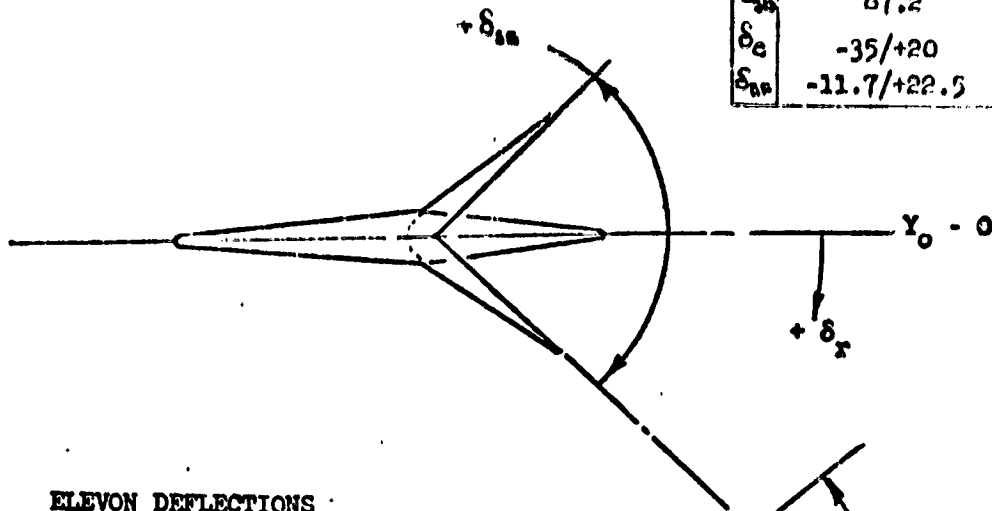


a. Orbiter Axis Systems

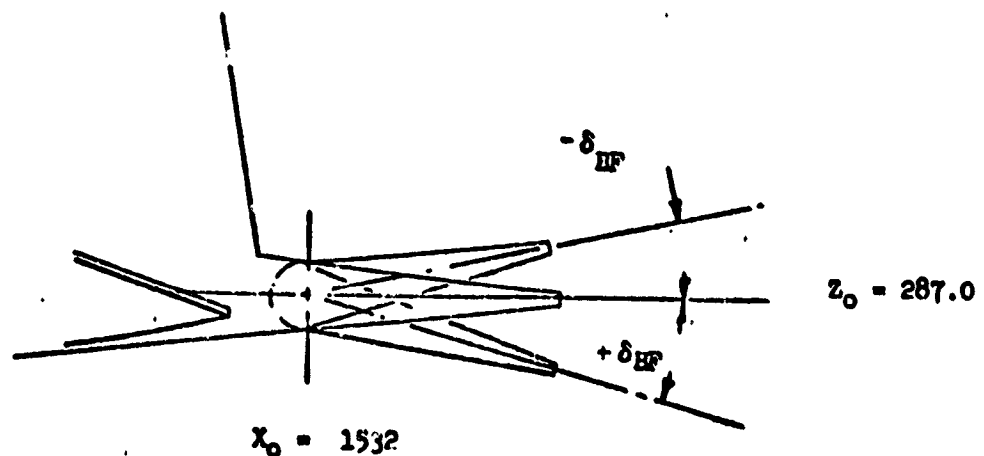
Figure 1. - Axis systems and sign conventions

RUDDER AND SPEED BRAKE DEFLECTIONS  
(PARALLEL TO THE FRL)

Maximum Deflections		
	Vehicle	Test CA-1-B
$\delta_r$	22.8	$\pm 10$
$\delta_{sb}$	87.2	85
$\delta_c$	-35/+20	$\pm 10$
$\delta_{sp}$	-11.7/+22.5	-11.7/+22.5

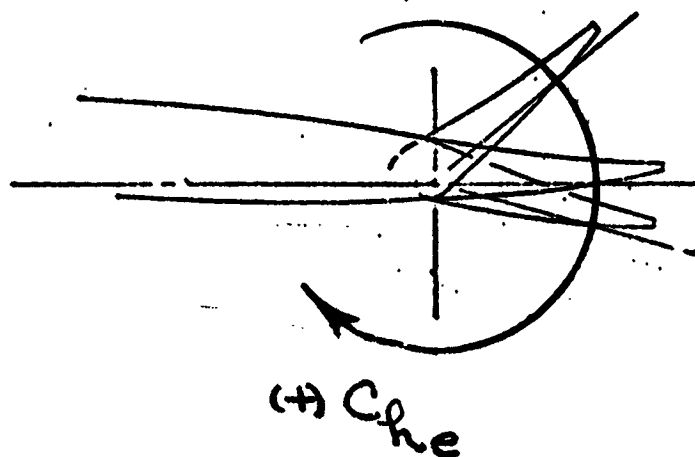


BODY FLAP DEFLECTIONS



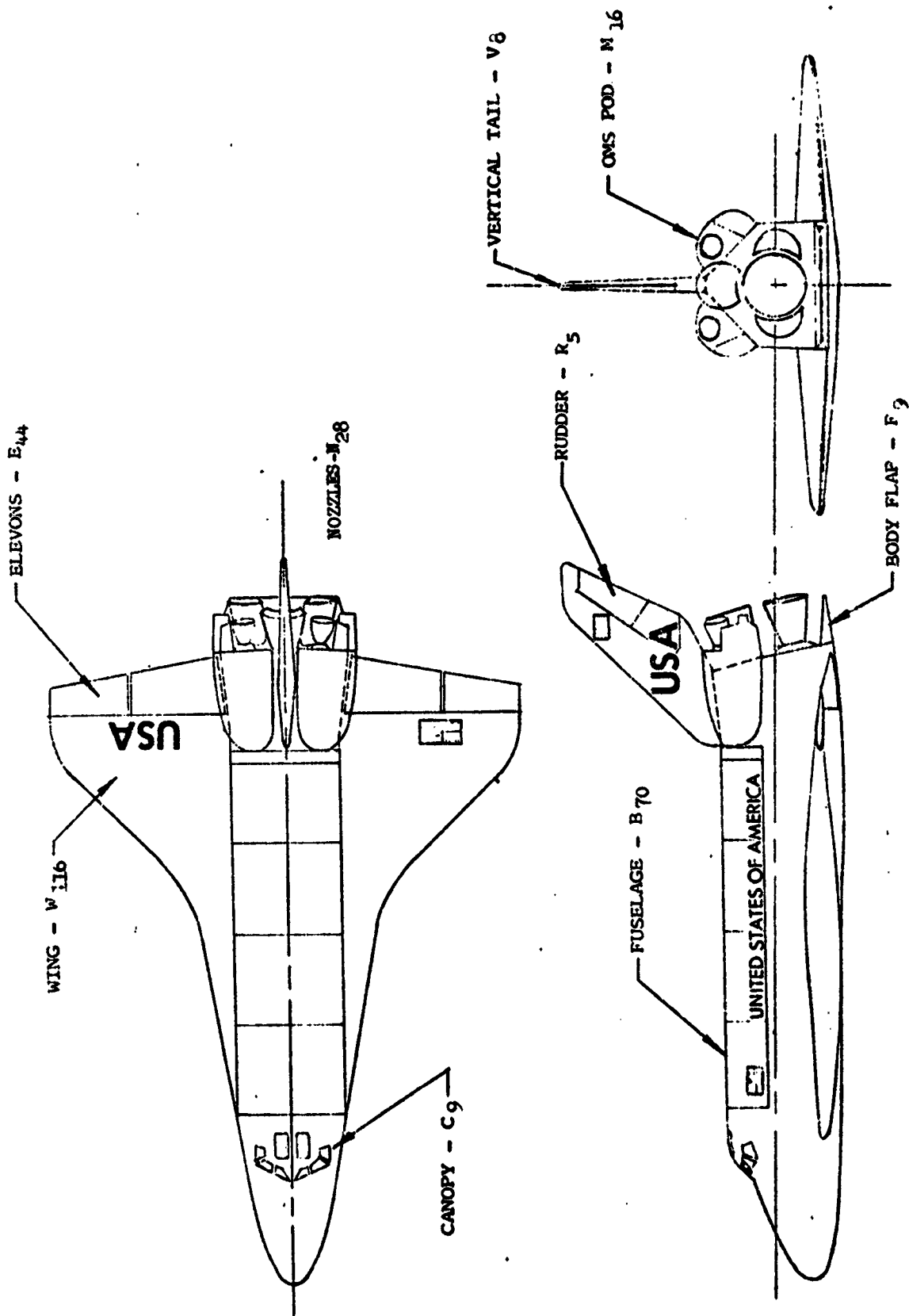
b. Definition of Angular Measurements

Figure 1. - Continued.



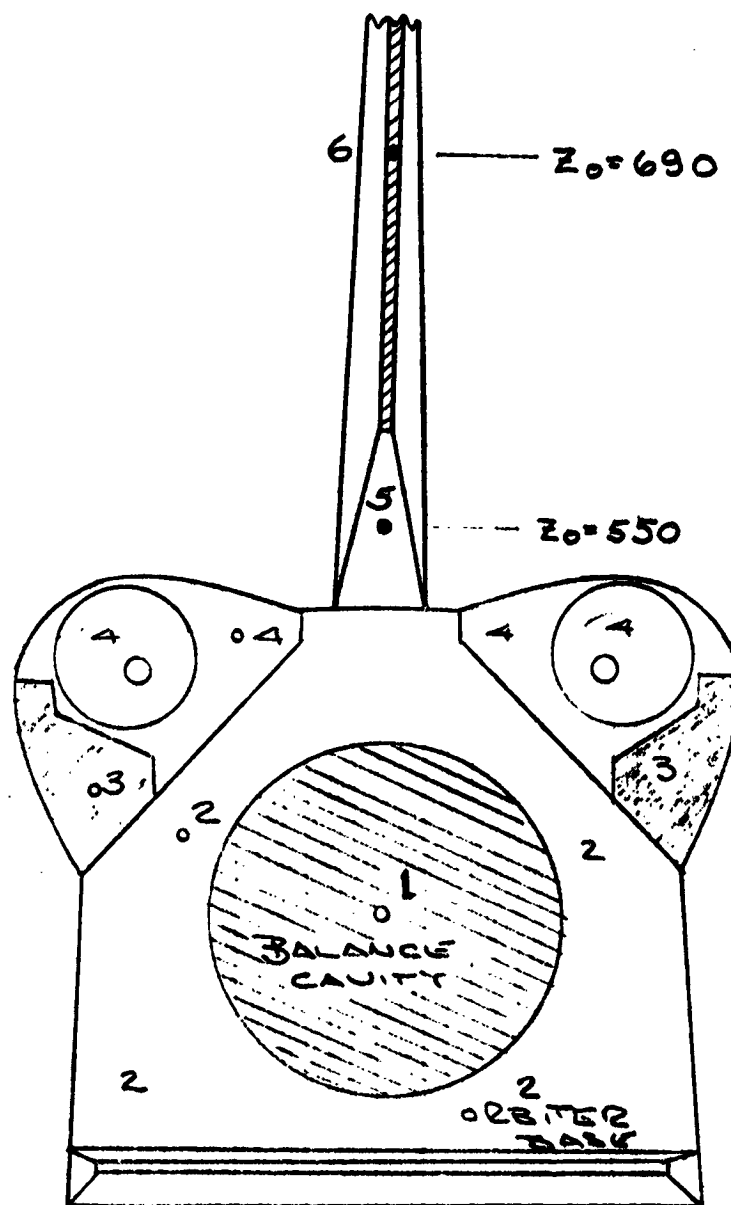
c. Elevon Hinge Moment Sign Convention

Figure 1. - Concluded.



a. Configuration - 140A/B/C/R

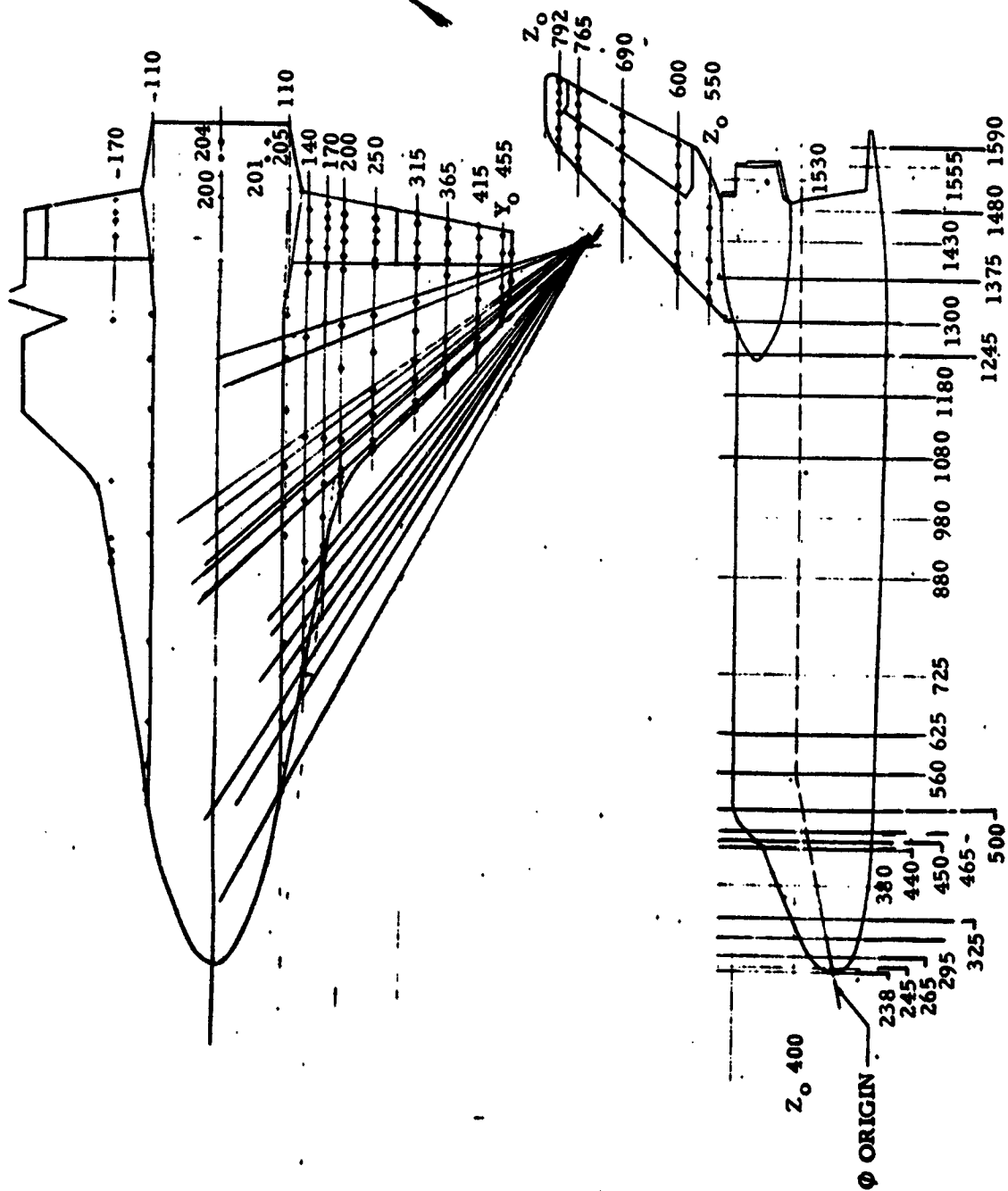
Figure 2. - Model sketches.



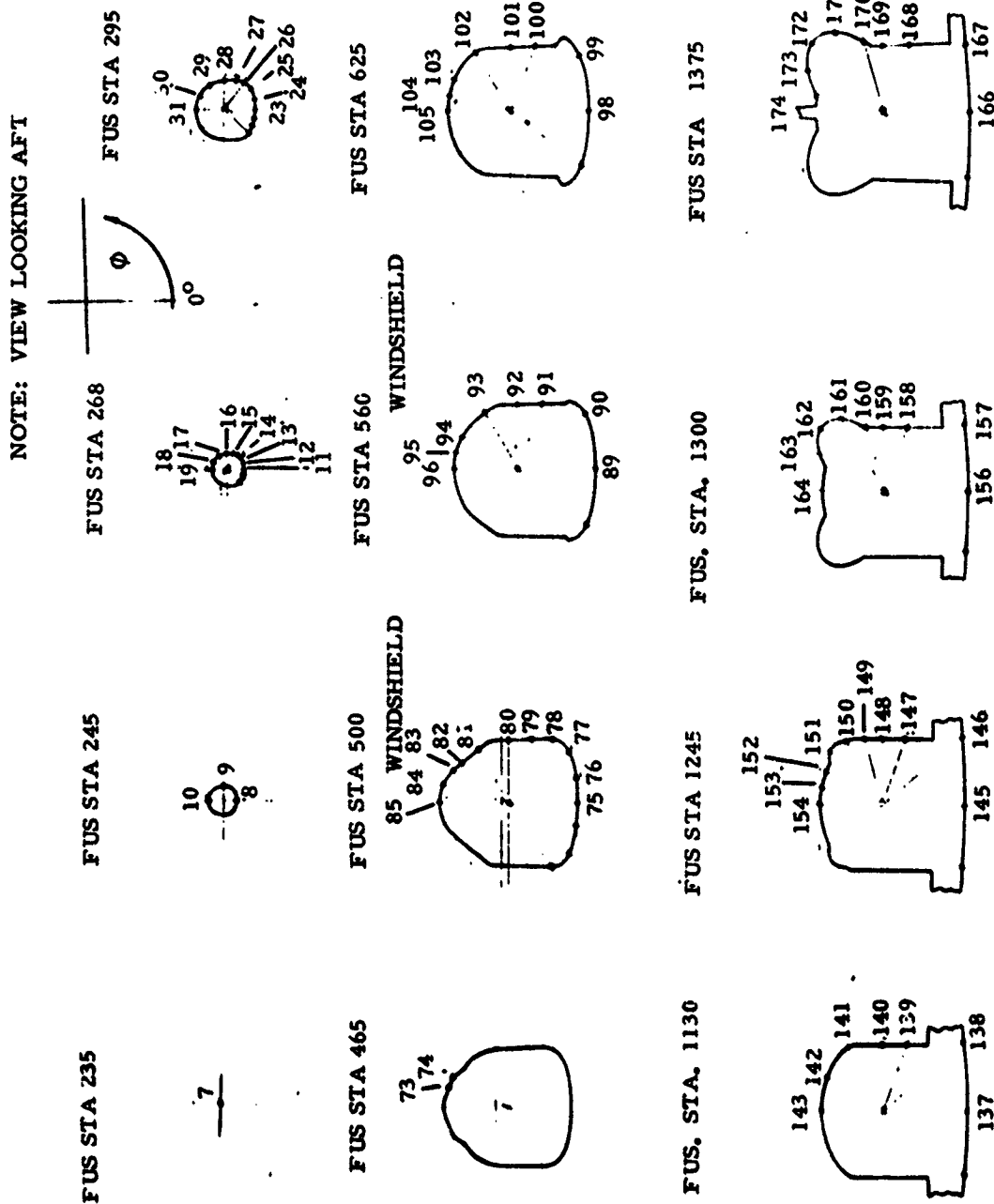
AREA NO.	PROJECTED AXIAL VALUE
A1	0.076699 $\mu^2$
A2	0.215695 $\mu^2$
A3	0.034072 $\mu^2$
A4	0.074167 $\mu^2$

b. Base Pressure Taps and Areas  
Figure 2. - Continued.

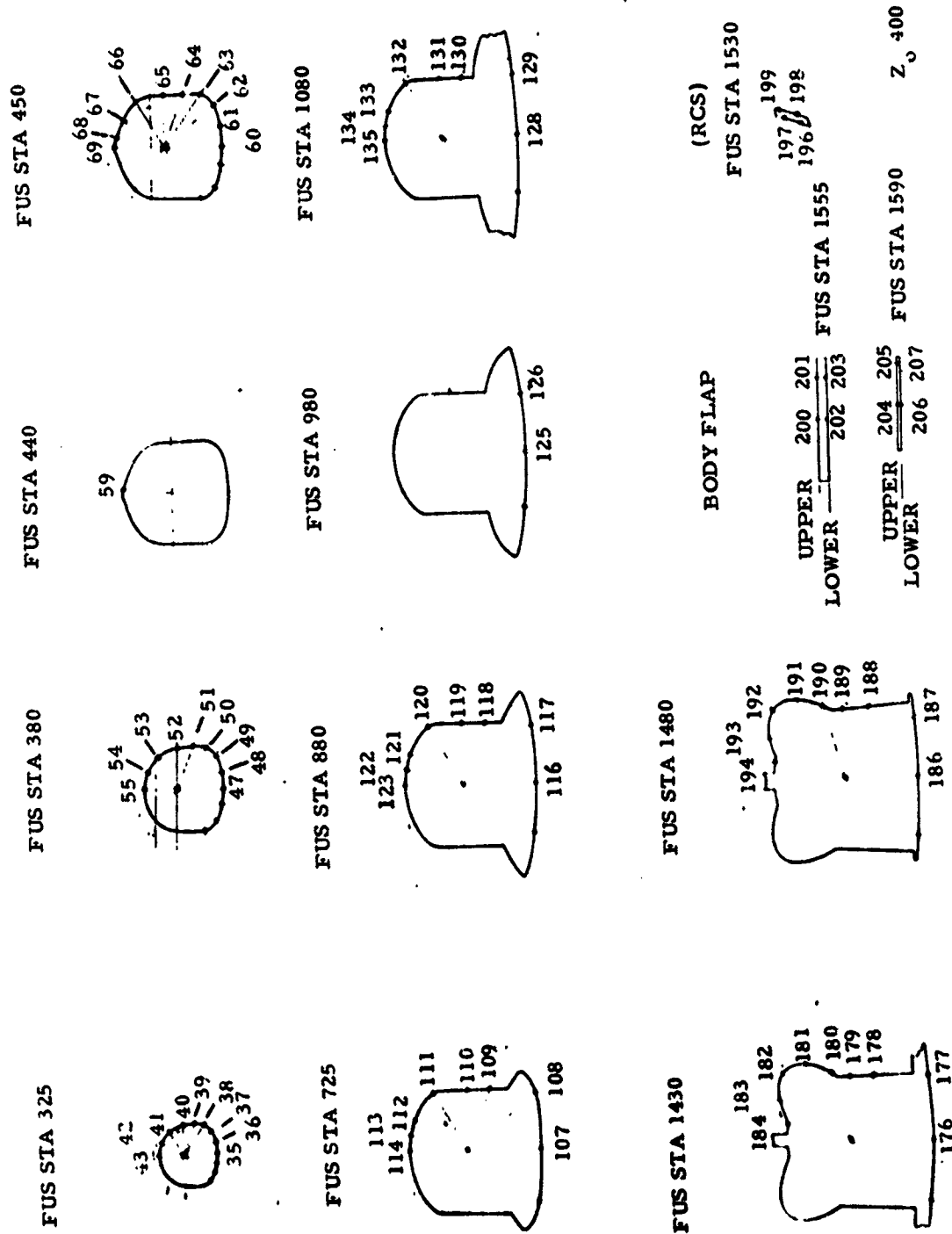




c. Fuselage, Vertical Tail, and Wing Pressure Tap Locations  
Figure 2. - Continued.

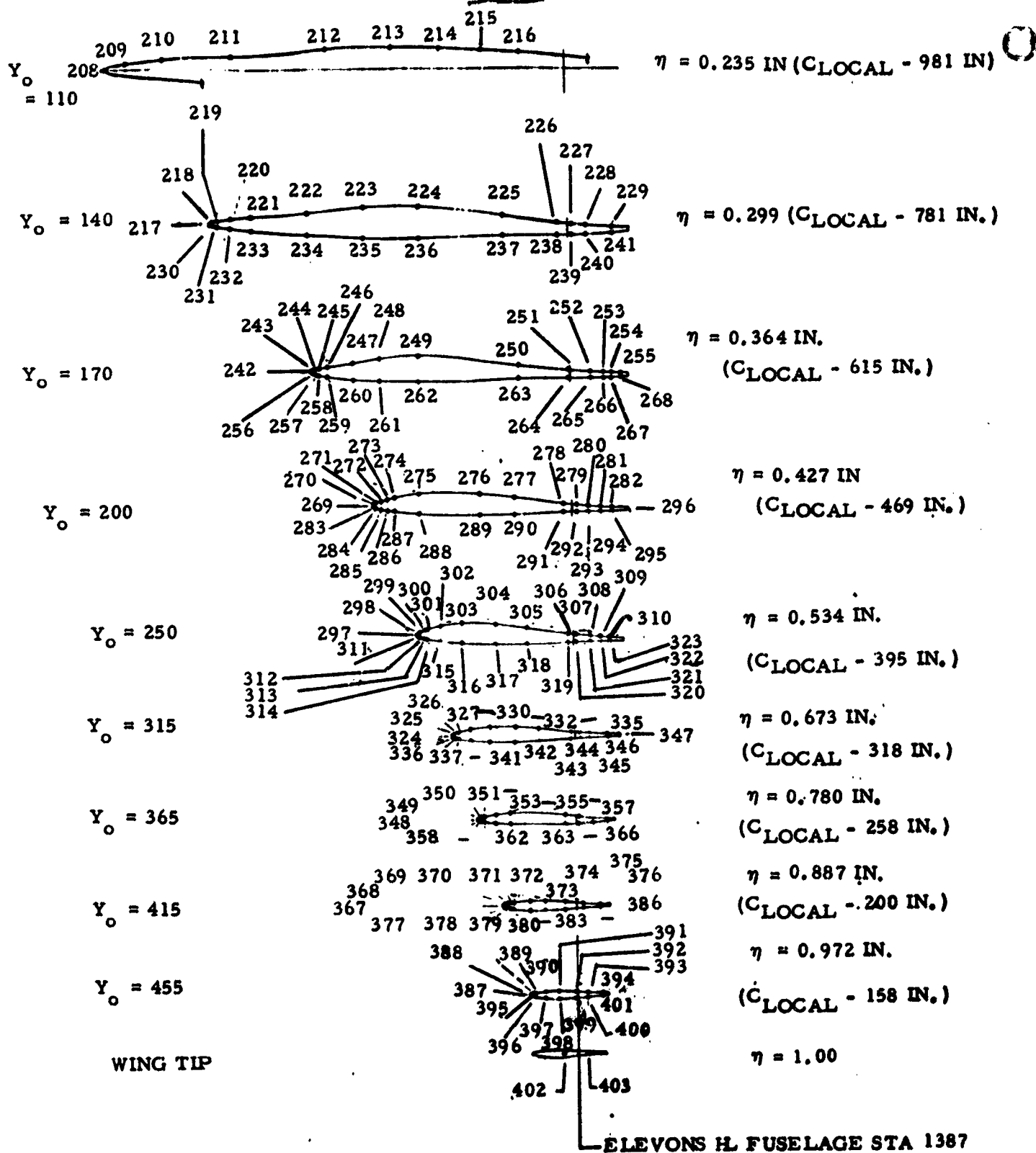


c. Fuselage, Vertical Tail, and Wing Pressure Tap Locations  
Figure 2. - Continued.

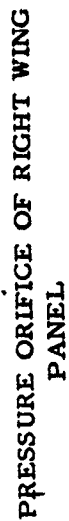


c. Fuselage, Vertical Tail, and Wing Pressure Tap Locations  
Figure 2. - Continued.

# PRESSURE ORIFICE LOCATION OF LEFT WING PANEL.



c. Fuselage, Vertical Tail, and Wing Pressure Tap Locations  
 Figure 2. - Continued.

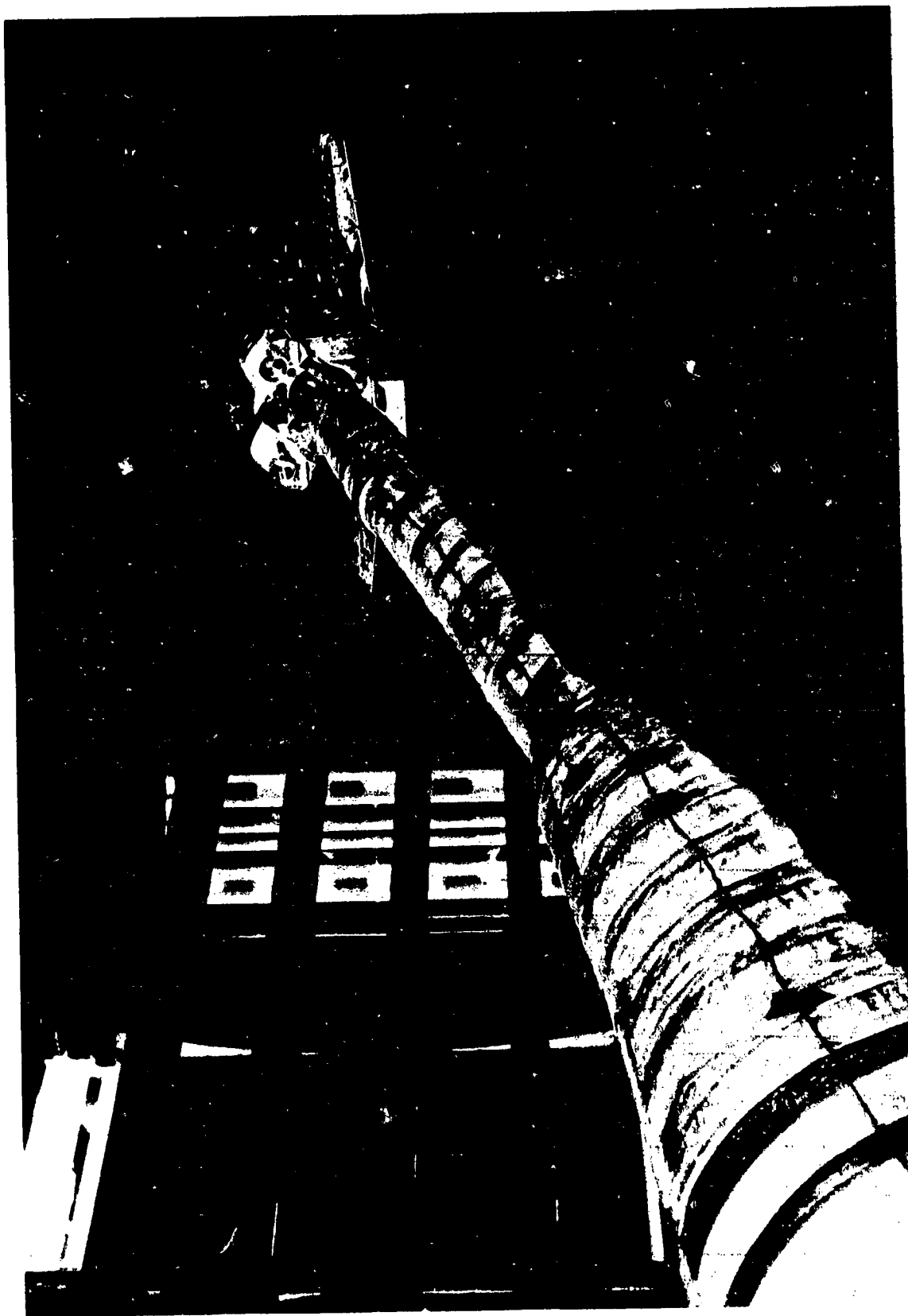


**Figure 2. - Concluded.**



a. Three Quarter Front View of model 47-0 in the ARC 11 x 11 UPWT

Figure 3. - Model installation photographs.



b. Three Quarter Rear View of Model 47-0 in the ARC 11 x 11 UPWT

Figure 3. - Concluded.

# APPENDIX

VOLUME NO.	CONTENTS	PAGES
3	TABULATED FORCE DATA	1-723
	TABULATED PRESSURE DATA	
	<u>COMPONENT</u>	
4, 5	Orbiter fuselage	1-1270
6, 7, 8 (Note)	Lower wing	1271-3146
9, 10, 11 (Note)	Upper wing	3197- 5404
12	Upper body flap	5405-5773
12	Lower body flap	5774-6142
13	Speed brake	6143-6546
13	Vertical tail	6547-7114

Note: Data tabulated at  $2Y/BW = .673$ ,  $X/CW = .775$ ,  $.850$ ,  $.950$  &  $1.00$  were actually located at  $2Y/BW = .641$ ,  $X/CW = .775$ ,  $.850$ ,  $.950$  &  $1.00$  as shown in Table V on page 47.



## REFERENCE DATA

=	SREF	=	2690.0000	50.FT.	=	XPRP	=	1076.6800	IN.	XO
=	LREF	=	474.8000	IN.	=	YPRP	=	.0000	IN.	YO
=	BREF	=	936.6800	IN.	=	ZPRP	=	375.0000	IN.	ZO
=	SCALE	=	.0300							

## PARAMETRIC DATA

RUDDER =	.000	SPOBRK =	55.000
BOFLAP =	16.300	ELVN-L =	.000
ELVN-R =	.000	MACH =	1.400

[illegible]

RUN NO.	33/ 0	FW/L	2.91	GRADIENT	INTERVAL	-5.00/	5.00	CY	CYN	CBL
MACH	CLU	CDU	CLMU	CNU	CAU					
1.35400	.00080	.17830	.02140	.00060	.17830		.07270	-.00490		.00340
1.35510	-.00010	.18030	.02410	-.00030	.13030		.00020	.00010		-.00170
1.359210	.00010	.18000	.02110	-.00010	.18000		.07400	.00550		-.00680
1.36123	.00009	.00021	-.00004	-.00009	.00021		-.01806	.00128		-.00126

[illegible]

RUN NO.	35/ 0	FW/L =	2.91	GRADIENT	INTERVAL =	-5.00/	5.00	CY	CYN	CBL
MACH										
1.39290								.06000	-.00110	.00490
1.39550								-.00040	.00030	-.00180
1.39210								-.06080	.00170	-.00990
1.39520								-.01480	.00035	-.00183

RUN NO.	59/ 0	RV/L =	2.92	GRADIENT	INTERVAL =	-5.00/	5.00	CY	CYN	CE
MACH	CLU	CDU	CLMU	CNU	CAU					
1.39630	.56700	.28630	-.07010	.61390	.16320			-.06720	-.00260	.00420
1.39360	.56940	.28730	-.07040	.61640	.16360			-.00020	.00010	-.00110
1.39250	.56910	.28700	-.07020	.61510	.16360			-.06990	.00340	-.00640
1.00047	.00014	.00009	-.00001	.00005	.00005			-.01692	.00074	-.00131

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

PAGE 2

AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE8001) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 59/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
15.872	-3.862	1.39330	.73930	.37490	-.08910	.81370	.15840	.06180	.00210	.00610
15.986	.149	1.39170	.74590	.37800	-.09250	.82080	.15940	.00010	.00010	-.00100
15.901	4.249	1.39550	.73870	.37650	-.08920	.81360	.15970	-.06430	-.00160	-.00770
	GRADIENT	.00027	-.00008	.00020	-.00001	-.00002	.00016	-.01555	-.00046	-.00170

AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE8002) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 38/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.081	-3.888	1.24760	-.23890	.20070	.09010	-.25260	.18310	.07870	-.00740	.00220
-4.075	.154	1.24760	-.24490	.20200	.09510	-.25870	.18410	.00020	-.00030	-.00280
-4.083	4.234	1.24680	-.23960	.20180	.09000	-.25340	.18420	-.08050	.00580	-.00730
	GRADIENT	-.00012	-.00008	.00014	-.00001	-.00010	.00014	-.01960	.00175	-.00117

RUN NO. 39/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-0.037	-3.909	1.24880	-.00150	.18230	.03320	-.00160	.18230	.07380	-.00620	.00410
-0.032	.147	1.24680	-.00490	.18270	.03670	-.00500	.18270	.00110	-.00000	-.00220
-0.038	4.211	1.24740	-.00460	.18420	.03380	-.00470	.18410	-.07310	.00500	-.00810
	GRADIENT	-.00017	-.00038	.00023	.00007	-.00038	.00022	-.01809	.00150	-.00150

RUN NO. 40/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.858	-3.910	1.24650	-.21300	.19350	-.01030	.22550	.17870	.06770	-.00420	.00530
3.859	.139	1.24760	-.21070	.19510	-.00860	.22340	.18050	.00170	-.00030	-.00220
3.860	4.204	1.24630	-.21090	.19490	-.01130	.22350	.18030	-.06670	.00440	-.00940
	GRADIENT	-.00002	-.00026	.00017	-.00012	-.00025	.00020	-.01656	.00106	-.00181

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE6002) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 41/ 0 RM/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.842	-3.305	1.24630	.41940	.23330	-.04370	.44730	.17390	.06260	-.00300	-.00430
7.841	.143	1.24630	.41100	.23280	-.04130	.43890	.17460	.00060	.00000	-.00240
7.841	4.209	1.24690	.41290	.23360	-.04270	.44090	.17510	-.06260	.00300	-.00540
	GRADIENT	.00006	-.00080	.00004	.00012	-.00079	.00015	-.01543	.00074	-.00169

RUDDER = .007 SPOBRX = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RUN NO.

42/ 0 RM/L = 3.02

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.942	-3.887	1.24590	.61760	.30220	-.06590	.65570	.16790	.06350	-.00320	-.00740
11.952	.148	1.24490	.61840	.30300	-.06460	.65780	.16840	-.00180	.00090	-.00040
11.946	4.215	1.24490	.61580	.30290	-.06540	.65510	.16890	-.06550	.00350	-.01060
	GRADIENT	-.00012	-.00022	.00009	.00003	-.00020	.00012	-.01592	.00083	-.00222

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE6003) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 43/ 0 RM/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.048	-3.881	1.09740	-.27770	.19800	.09870	-.29100	.17790	.07470	-.00650	-.00150
-4.035	.153	1.09760	-.28240	.20000	.09940	-.29570	.17960	.00020	-.00020	-.00350
-4.044	4.236	1.09330	-.28030	.19960	.09730	-.29370	.17940	-.07800	.00640	-.00490
	GRADIENT	.00011	-.00032	.00020	-.00017	-.00033	.00018	-.01881	.00159	-.00042

RUDDER = .000 SPOBRX = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

## PARAMETRIC DATA

RUN NO.

44/ 0 RM/L = 3.19

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-0.027	-3.903	1.09330	-.01870	.17730	.04540	-.01880	.17730	.06970	-.00620	-.00510
-0.023	.144	1.09330	-.02460	.17810	.05110	-.02470	.17810	.00070	-.00030	-.00310
-0.029	4.209	1.10000	-.02040	.17670	.04490	-.02050	.17870	-.07010	.00590	-.01110
	GRADIENT	.00021	-.00021	.00017	-.00006	-.00021	.00017	-.01724	.00149	-.00200

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8003) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 336.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 45/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.893	-3.903	1.09910	.22600	.19430	-.00080	.23870	.17860	.06740	-.00610	.00500
3.894	.147	1.09750	.22560	.19610	-.00040	.23840	.18030	.00120	-.00030	-.00300
3.895	4.201	1.09800	.22640	.19590	-.00370	.23920	.18010	-.06570	.00540	-.01130
	GRADIENT	-.00014	.00005	.00020	-.00036	.00006	.00013	-.01642	.00142	-.00201

RUN NO. 46/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.886	-3.898	1.09720	.43230	.23890	-.02680	.46100	.17730	.06950	-.00790	.00510
7.886	.144	1.09800	.43050	.23680	-.02990	.45890	.17550	.00150	-.00060	-.00280
7.886	4.200	1.09750	.43030	.23940	-.02930	.45900	.17810	-.06950	.00750	-.00990
	GRADIENT	.00004	-.00025	.00006	-.00031	-.00025	.00010	-.01717	.00190	-.00185

RUN NO. 47/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.990	-3.881	1.09950	.63160	.30870	-.04430	.68200	.17070	.06160	-.00530	.00950
11.997	.149	1.09720	.63440	.30710	-.04580	.68430	.16660	-.00410	.00160	-.00130
11.992	4.212	1.09670	.63000	.30880	-.04520	.68040	.17110	-.07330	.00840	-.01160
	GRADIENT	-.00035	-.00020	.00001	-.00011	-.00020	.00005	-.01657	.00169	-.00261

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 336.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

## PARAMETRIC DATA

RUN NO. 48/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.058	-3.880	.89870	-.25380	.12010	.04210	-.26170	.10180	.09270	-.01280	-.00350
4.036	.153	.89870	-.25760	.12090	.04530	-.26550	.10250	.00170	-.00050	-.00390
4.047	4.237	.89900	-.25423	.11880	.03860	-.26200	.10060	-.09180	.01140	-.00310
	GRADIENT	.00004	-.00005	-.00016	-.00043	-.00004	-.00015	-.02273	.00298	.00005

(RE8004) ( 12 AUG 75 )

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TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C/R ORBITER

(REB004) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.025	-3.907	.89900	-.02200	.10530	.02630	-.02200	.10530	.09130	-.01290	.00130
-.020	.144	.89800	-.02350	.10410	.02900	-.02350	.10410	.00210	-.00070	-.00270
-.027	4.215	.89700	-.02180	.10430	.02360	-.02180	.10430	-.08830	.01170	-.00520
	GRADIENT	-.00015	.00002	-.00012	-.00033	.00002	-.00012	-.02211	.00303	-.00092

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.898	-3.912	.89970	.19040	.11700	.01560	.19790	.10380	.08980	-.01240	.00150
3.896	.152	.89600	.18200	.11560	.02110	.19400	.10300	.00380	-.00080	-.00370
3.899	4.208	.89330	.18710	.11460	.01480	.19450	.10160	-.08410	.01120	-.00680
	GRADIENT	-.00005	-.00041	-.00030	-.00010	-.00042	-.00027	-.02142	.00291	-.00127

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.895	-3.903	.89930	.38440	.15520	.00550	.40210	.10100	.77950	-.00930	.00530
7.900	.140	.89840	.38720	.15560	.00490	.40490	.10090	.00060	-.00010	-.00270
7.897	4.209	.89930	.38610	.15450	.00310	.40370	.10000	-.08050	.00910	-.01020
	GRADIENT	.00000	.00021	-.00009	-.00030	.00020	-.00012	-.01973	.00227	-.00187

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.985	-3.890	.89970	.56520	.22140	-.00250	.59890	.09920	.07790	-.00730	.00770
11.993	.152	.89780	.56500	.22050	-.00060	.59850	.09830	-.00120	-.00130	-.00170
11.982	4.222	.89740	.55780	.22020	-.00310	.59140	.09860	-.08230	.00650	-.01170
	GRADIENT	-.00028	-.00091	-.00015	-.00007	-.00093	.00005	-.01975	.00170	-.00239

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE8005) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.6000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RUN NO. 53/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.996	-7.893	.59520	-.18500	.08920	.01490	-.19070	.07610	.15410	-.01569	.00060
-3.981	-3.877	.59590	-.19550	.09400	.02010	-.20160	.08020	.07520	-.00640	-.00260
-3.973	.156	.59550	-.20150	.09660	.02330	-.20770	.08240	.00000	.00010	-.00330
-3.981	4.231	.59590	-.19590	.09320	.01830	-.20190	.07940	.00650	.00650	-.00330
-3.995	8.308	.59550	-.18310	.08790	.01400	-.18880	.07490	-.15880	.01590	-.00550
	GRADIENT	.00000	-.00005	-.00010	-.00022	-.00003	-.00010	-.01875	.00159	-.00009

RUN NO. 54/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-0.001	-7.930	.59520	-.00640	.08360	.01380	-.00640	.08361	.15130	-.01600	.00520
.008	-3.896	.59560	-.01320	.08710	.01860	-.01310	.08710	.07500	-.00660	.00010
.009	.144	.59560	-.01970	.08870	.02200	-.01970	.08870	.00100	.00000	-.00310
.008	4.214	.59550	-.01410	.08680	.01670	-.01410	.08690	-.07530	.00670	-.00590
.003	8.269	.59560	-.00250	.08190	.01160	-.00250	.08190	-.15560	.01610	-.01040
	GRADIENT	-.00000	-.00011	-.00004	-.00024	-.00012	-.00003	-.01853	.00164	-.00074

RUN NO. 55/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.907	-7.936	.59560	.17010	.08840	.01250	.17570	.07660	.14890	-.01650	.03960
3.912	-3.897	.59520	.16990	.09140	.01630	.17570	.07960	.07450	-.00680	.00190
3.909	.143	.59480	.16030	.09160	.02090	.16620	.08040	.00200	-.00020	-.00340
3.918	4.207	.59450	.17060	.09170	.01460	.17650	.07980	-.07340	.00670	-.00640
3.922	8.252	.59490	.18090	.08740	.01000	.18640	.07480	-.15430	.01650	-.01520
	GRADIENT	-.00009	.00009	.00004	-.00021	.00010	.00002	-.01826	.00167	-.00127

RUN NO. 56/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.956	-7.319	.59530	.36870	.10730	.00830	.38000	.05530	.14260	-.01640	.01460
7.965	-3.894	.59410	.36500	.10980	.01340	.37770	.05800	.07070	-.00640	.00400
7.970	.145	.59490	.36290	.10910	.01680	.37450	.05770	.00230	-.00010	-.00370
7.969	4.201	.59410	.37010	.11000	.01080	.38180	.05770	-.06980	.00660	-.01110
7.967	8.254	.59300	.37890	.10760	.00670	.39010	.05410	-.15010	.01650	-.02080
	GRADIENT	-.00000	.00051	.00002	-.00032	.00051	-.00004	-.01736	.00161	-.00187

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8005) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDER = .000  
 BDFLAP = 16.300  
 ELVN-R = .000  
 MACH = .600  
 SPOBRK = 55.000  
 ELVN-L = .000

## PARAMETRIC DATA

RUN NO. 57/ 0 RV/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CB
12.002	-7.881	.59460	.58420	.15130	.00280	.60290	.02650	.13470	-.01570	.02070
12.020	-3.874	.59570	.57250	.15180	.01220	.59160	.02920	.06290	-.00450	.00800
12.028	.150	.59520	.56730	.15170	.01740	.58650	.03010	-.00070	.00090	-.07340
12.028	4.211	.59500	.58030	.15280	.00920	.55940	.02850	-.06770	.00640	-.01430
12.020	8.278	.59460	.59760	.15390	-.00030	.61660	.02600	-.14650	.01650	-.02670
	GRADIENT	-.00009	.00097	.00012	-.00037	.00097	-.00009	-.01615	.00135	-.00276

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8006) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDER = .000  
 BDFLAP = 22.500  
 ELVN-R = .000  
 MACH = .630  
 SPOBRK = 55.000  
 ELVN-L = .000

## PARAMETRIC DATA

RUN NO. 60/ 0 RV/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CB
-4.026	-7.883	.59550	.16490	.09350	-.00030	.17110	.08170	.15370	-.01580	.00060
-4.010	-3.877	.59590	.17560	.09880	.00550	.12200	.08630	.07450	-.00630	-.00240
-3.994	.154	.59510	.18300	.10170	.00820	.18530	.08670	-.06140	.00020	-.00310
-4.001	4.235	.59660	.17650	.09830	.00370	.18290	.08580	-.07810	.00670	-.00330
-4.013	8.308	.59560	.16430	.09310	-.00080	.17040	.08040	-.15972	.01620	-.00540
	GRADIENT	.00009	-.00011	-.00006	-.00022	-.00011	-.00006	-.01881	.00160	-.00011

RUN NO. 61/ 0 RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CB
.023	-7.929	.59670	.01470	.08940	-.00130	.01480	.08940	.15110	-.01640	.00570
.033	-3.896	.59630	.00800	.09250	.00380	.00800	.09250	.07410	-.00650	.00010
.035	.147	.59670	.00190	.09440	.00720	.00200	.09440	.00030	.00000	-.00300
.050	4.214	.59590	.00800	.09310	.00200	.00810	.09300	-.07600	.00690	-.00590
.045	8.269	.59590	.01940	.08790	-.00290	.01950	.08790	-.15680	.01670	-.01060
	GRADIENT	-.00005	.00000	.00007	-.00022	.00001	.00006	-.01851	.00165	-.00074

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8008) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 55.000  
 BDFL-P = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

## PARAMETRIC DATA

RUN NO. 62/ 0		RN/L = 4.81		GRADIENT INTERVAL = -5.00/ 5.00		CNU		CAU		CY		CYN		CBL	
ALPHA	BETA	MACH	CLU	CDU	CLMU	CLNU	CAU	CY	CYN	CBL					
3.911	-7.932	.59640	.19150	.09570	-.00210	.19760	.08240	.14890	-.01690	.00980					
3.915	-3.897	.59600	.19130	.09680	.00130	.19760	.08560	.07420	-.00670	.00200					
3.912	.150	.59600	.19210	.09870	.00500	.18840	.08600	.00110	-.00010	-.00340					
3.921	4.204	.59600	.19150	.09910	-.00060	.19780	.08580	-.07290	.00690	-.00840					
3.925	8.248	.59530	.20120	.09440	-.00460	.20720	.08040	-.15440	.01690	-.01530					
	GRADIENT	-.00000	.00003	.00002	-.00023	.00003	.00002	-.01816	.00162	-.00128					

RUN NO. 63/ 0		RN/L = 4.82		GRADIENT INTERVAL = -5.00/ 5.00		CNU		CAU		CY		CYN		CBL	
ALPHA	BETA	MACH	CLU	CDU	CLMU	CLNU	CAU	CY	CYN	CBL					
7.957	-7.908	.59670	.38980	.11650	-.00640	.40220	.06140	.14320	-.01710	.01490					
7.965	-3.891	.59670	.38680	.11850	-.00230	.39950	.06370	.07050	-.00640	.00410					
7.972	.143	.59600	.38710	.11810	.00040	.39970	.06330	.00140	-.00010	.00370					
7.971	4.201	.59560	.39210	.11870	-.00470	.40470	.06320	-.07020	.00680	-.01090					
7.969	8.255	.59560	.39920	.11540	-.00720	.41140	.05900	-.15100	.01700	-.02090					
	GRADIENT	-.00014	.00066	.00002	-.00030	.00064	-.00006	-.01739	.00163	-.00185					

RUN NO. 64/ 0		RN/L = 3.85		GRADIENT INTERVAL = -5.00/ 5.00		CNU		CAU		CY		CYN		CBL	
ALPHA	BETA	MACH	CLU	CDU	CLMU	CLNU	CAU	CY	CYN	CBL					
12.008	-7.872	.59570	.60110	.16080	-.01200	.62140	.03230	.13488	-.01580	.02130					
12.030	-3.872	.59630	.59640	.16260	-.00380	.61710	.03470	.06360	-.00440	.00820					
12.036	.140	.59660	.58860	.16200	.00130	.60950	.03570	-.00020	.00100	-.00290					
11.949	4.211	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000					
12.026	8.275	.59530	.61590	.16290	-.01570	.63630	.03100	-.14590	.01640	.02680					
	GRADIENT	-.07402	-.07396	-.02016	.00047	-.07652	-.00430	-.00785	.00054	-.00101					



(REB007) ( 03 FEB 76 )

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

AVES 11-073(0A148) -140A/B/C/R ORBITER

DATE 08 MAY 76

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

RUDDER = .000  
BOFLAP = 22.503  
ELVN-R = .000

SPDRK = 55.000  
ELVN-L = .000  
MACH = .900

PARAMETRIC DATA

RUN NO. 66/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.068	-3.876	.8930	-.23620	.12490	.02580	-.24440	.10780	.09090	-.01220	-.00340
-4.048	.153	.89970	-.24050	.12740	.02690	-.24890	.11010	.00080	-.00030	-.00400
-4.057	4.237	.89900	-.23600	.12420	.02300	-.24410	.10720	-.09190	.01140	-.00320
	GRADIENT	-.00004	.00003	-.00009	-.00035	.00004	-.00008	-.02253	.00291	.00003

RUN NO. 66/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.010	-3.903	.90000	-.00240	.11200	.00950	-.00240	.11200	.08870	-.01250	.00130
.014	.148	.90120	-.00440	.11070	.01230	-.00440	.11070	.00080	-.00040	-.00280
.013	4.211	.90060	-.00020	.11160	.00740	-.00020	.11160	-.08790	.01190	-.00640
	GRADIENT	.00007	.00027	-.00002	-.00026	.00027	-.00002	-.02176	.00301	-.00095

RUN NO. 67/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.998	-3.905	.90090	.20960	.12510	-.00060	.21780	.11010	.08880	-.01220	.00130
4.002	.135	.90090	.20450	.12480	.00400	.21270	.11020	.00190	-.00070	-.00410
3.920	4.206	.90030	.20970	.12400	-.00230	.21770	.10940	-.08620	.01150	-.00860
	GRADIENT	-.00007	.00001	-.00014	-.00021	-.00001	-.00009	-.02158	.00292	-.00125

RUN NO. 69/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.946	-3.900	.89930	.40450	.16620	-.01230	.42360	.10870	.08070	-.00960	.00500
7.956	.143	.89930	.41260	.16650	-.01260	.43170	.10780	.00150	-.00030	-.00290
7.955	4.206	.89740	.41680	.16750	-.01560	.43590	.10820	-.08130	.00930	-.01060
	GRADIENT	-.00023	.00152	.00016	-.00041	.00192	-.00006	-.01999	.00233	-.00195

RUN NO. 70/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.537	-3.885	.89970	.59120	.23740	-.02400	.62760	.10950	.08120	-.00820	.00790
11.597	.148	.89970	.59040	.23480	-.02060	.62630	.10700	-.00010	-.00130	-.00140
11.587	4.223	.89900	.58640	.23810	-.02490	.62310	.11110	-.08500	.00720	-.01120
	GRADIENT	-.00009	-.00059	.00009	-.00011	-.00056	.00020	-.02050	.00190	-.00236

**DATE 08 MAY 76**

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

**PAGE 10**

AMES 11-073(OA148) -140A/B/C/R ORBITER

(REB008) ( 12 AUG 75 )

## REFERENCE DATA

SREF	=	2690.000C	SQ.FT.
LREF	=	474.8000	IN.
BREF	=	936.6800	IN.
SCALE	=	.0300	

XMRP	=	1076.6800	IN.	X0
YMRP	=	.0000	IN.	Y0
ZMRP	=	375.0000	IN.	Z0

RUDDER =	.000	SPDRBK =	85.000
DOFLAP =	22.500	ELVN-L =	.000
ELVN-R =	.000	MACH =	1.400

## PARAMETRIC DATA

**RUN NO. 71/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00**

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.017	-3.884	1.39750	-2.0720	.22590	.09030	-.22260	.21090	.07650	-.00520	.00120
3.966	.155	1.39480	-.21050	.22880	.09540	-.22580	.21370	-.00140	-.00030	.00200
4.012	4.241	1.39370	-2.0780	.22610	.09130	-.22320	.21110	-.08000	.00430	-.02480
	GRADIENT	1.00047	-.00007	.00002	.00012	-.00007	.00002	-.01923	.00117	-.00074

RUN NO. 72/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.007	-3.899	1.35750	-.00760	.20910	.04720	-.00760	.20910	.07110	-.00390	.00260
-.001	.155	1.39530	-.00860	.21080	.05010	-.00860	.21080	-.00090	-.00010	-.00160
-.006	4.218	1.39440	-.00570	.21020	.04630	-.00570	.21020	-.07320	-.00370	-.00570
	GRADIENT	-.00038	-.00023	.00014	-.00011	-.00023	.00014	-.01778	.00094	-.00102

RUN NO. 73/ 0 RN/L = 2.92 GRADIENT INTERVAL = .5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.849	-3.909	1.39550	.18310	.21530	.00800	.19720	.20250	.06530	-.00210	.00430
3.967	.194	1.39670	.18670	.21660	.01010	.20130	.20310	-.00080	.00160	-.00160
3.885	4.208	1.39550	.21700	.21000	.00650	.20280	.20370	-.06650	.00230	-.00760
GRADIENT		.00000	.00068	.00021	-.00018	.00069	.00015	-.01624	.00054	-.00147

RUN NO. 74/ 0 RN/L = 2.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CIVU	CAU	CY	CYN	CBL
7.868	-3.901	1.39330	.37440	.24670	-.02310	.40490	.19510	.05890	-.00020	.00390
7.941	.144	1.35670	.37220	.24940	-.02200	.40310	.19560	-.00170	.00000	-.00170
7.942	4.207	1.39550	.37890	.25040	-.02600	.40980	.19570	-.06070	.00030	-.00930
	GRADIENT	.00027	.00056	.00021	-.00036	.00061	.00007	-.01475	.00006	-.00163

75/ 0	RN/L =	2.92	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
1.630	-3.888	1.39210	.55560	.31030	-.05120	.60760	.18920	.06580	-.00170	.00360
1.897	.146	1.39550	.55560	.31160	-.05140	.60790	.19030	-.00090	-.00020	-.00110
1.893	4.224	1.39550	.55410	.31240	-.05220	.60680	.19150	-.06680	.00120	-.00620
GRADIENT		.0042	-.00019	.00026	-.00012	-.00012	-.00028	-.01635	.00035	-.00121

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 11

(RE8008) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPDRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 76/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
15.905	-3.863	.72750	.39860	-.07210	.80890	.18390	.06180	.00250	.00580
15.918	.144	.73220	.40210	-.07450	.81450	.18590	.00010	-.00020	-.00080
15.908	4.250	.72460	.39930	-.07290	.80630	.18540	-.06490	-.00240	-.00720
	GRADIENT	-.00036	.00008	-.00010	-.00033	.00018	-.01562	-.00060	-.00160

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPDRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8009) ( 12 AUG 75 )

RUN NO. 77/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.026	-3.882	-.24880	.22920	.11680	-.26430	.21120	.07450	-.00570	.00090
-4.017	.155	-.25470	.23090	.12240	-.27030	.21250	-.00110	-.00040	-.00270
-4.025	4.236	-.24840	.22950	.11660	-.26390	.21150	-.07720	.00440	-.00550
	GRADIENT	.00005	.00004	-.00003	.00005	.00004	-.01869	.00124	-.00079

RUN NO. 78/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.013	-3.903	-.01080	.21140	.05780	-.01080	.21140	.06900	-.00440	.00260
.017	.152	-.01330	.21210	.06020	-.01320	.21210	-.00090	-.00020	-.00210
.013	4.217	-.01000	.21290	.05740	-.01000	.21290	-.07180	.00370	-.00650
	GRADIENT	.00010	.00018	-.00005	.00010	.00018	-.01734	.00100	-.00116

RUN NO. 79/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.907	-3.907	.20290	.22160	.01040	.21750	.20730	.06390	-.00250	.00400
3.907	.148	.20410	.22150	.00800	.21870	.20700	-.00020	.00000	-.00200
3.911	4.207	.20790	.22380	.00830	.22270	.20910	-.06520	.00230	-.00810
	GRADIENT	.00062	.00027	-.00026	.00064	.00022	-.01591	.00059	-.00149

DATE 08 MAY 76

TABULATED FORCE DATA - C-148 ( AVES 11-073-1 )  
AVES 11-07310A148) -140A/B/C/R ORBITER

PAGE 12

(REB009) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER =  
BOFLAP =  
ELVN-R =

SPOBRK = 85.000  
ELVN-L = .000  
MACH = 1.250

## PARAMETRIC DATA

RUN NO. 80/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
7.933	-3.903	1.24630	.41200	.25970	-.02660	.44390	.20030	.06040	-.00140	.00340
7.889	.143	1.24630	.41470	.25640	-.03210	.44600	.19710	.00090	-.00030	-.00190
7.857	4.208	1.24630	.41190	.26040	-.02690	.44370	.20170	-.06120	.00120	-.00820
	GRADIENT	-.00000	-.00001	.00009	-.00004	-.00003	.00017	-.01499	.00032	-.00143

RUN NO. 81/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
11.893	-3.885	1.24530	.60580	.32570	-.05150	.65990	.19390	.06240	-.00190	.00670
11.849	.145	1.24530	.61160	.32340	-.05650	.66500	.19090	-.00110	.00080	.00040
11.844	4.220	1.24530	.60640	.32680	-.05280	.66280	.19490	-.06380	.00160	-.00910
	GRADIENT	-.00036	.00032	.00014	-.00016	.00033	.00012	-.01557	.00043	-.00195

AVES 11-07310A148) -140A/B/C/R ORBITER

(REB310) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER =  
BOFLAP =  
ELVN-R =

SPOBRK = 85.000  
ELVN-L = .000  
MACH = 1.100

## PARAMETRIC DATA

RUN NO. 82/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
-4.037	-3.883	1.09720	-.28020	.21990	.11110	-.29490	.19960	.07230	-.00580	-.00230
-4.035	.155	1.09880	-.28110	.22180	.11640	-.30600	.20080	-.00190	-.00040	-.00330
-4.042	4.235	1.09720	-.28560	.22010	.11170	-.30040	.19940	-.07780	.00480	-.00340
	GRADIENT	-.00000	-.00086	.00002	.00007	-.00067	-.00003	-.01849	.00131	-.00014

RUN NO. 83/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
.020	-3.899	1.09930	-.02130	.19770	.05760	-.02120	.19770	.06370	-.00440	.00400
.025	.152	1.10010	-.02730	.19550	.06160	-.02720	.19560	-.00050	-.00050	-.00300
.023	4.214	1.09930	-.02030	.19830	.05650	-.02020	.19830	-.06800	.00380	-.00370
	GRADIENT	-.00000	.00012	.00007	-.00014	.00012	.00007	-.01623	.00101	-.00169

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

PAGE 12

(RE8010) ( 12 AUG 75 )

AVES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 84/ 0 RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
3.934	-3.903	1.09960	.22150	.21690	.01020	.23590	.20120	.06290	-.00420	.00400
3.940	.149	1.09940	.22280	.21460	.00840	.23700	.19880	-.00010	-.00350	-.00260
3.944	4.204	1.09760	.22660	.21800	.00680	.24300	.20180	-.06390	.00320	-.00960
	GRADIENT	-.00025	.00068	.00014	-.00042	.00088	.00007	-.01564	.00091	-.00168

RUN NO. 85/ 0 RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
7.882	-3.899	1.05720	.42160	.26050	-.01360	.45340	.20030	.05760	-.00660	.00350
7.887	.144	1.09980	.43080	.25870	-.02030	.46220	.19710	.00200	-.00080	-.00240
7.888	4.206	1.09800	.43080	.26200	-.01820	.46270	.20040	-.05750	.00520	-.00820
	GRADIENT	.00010	.00113	.00019	-.00057	.00115	.00001	-.01667	.00146	-.00144

RUN NO. 86/ 0 RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.921	-3.873	1.10040	.61880	.33060	-.03150	.67380	.19570	.05710	-.00330	.00850
11.930	.146	1.09920	.62730	.33000	-.03660	.68190	.19320	-.00390	.00140	-.00020
11.928	4.214	1.09760	.62430	.33060	-.03380	.67910	.19440	-.06910	.00530	-.00940
	GRADIENT	-.00035	.00068	.00000	-.00028	.00065	-.00016	-.01561	.00103	-.00221

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

## PARAMETRIC DATA

RUN NO. 87/ 0 RV/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-4.067	-3.873	.90050	-.26540	.14650	.05500	-.27510	.12730	.08610	-.01020	-.00460
-4.047	.148	.90040	-.27090	.15070	.06100	-.28080	.13120	-.00040	-.00050	-.00380
-4.057	4.239	.90040	-.26490	.14690	.05330	-.27460	.12770	-.08700	.00850	-.00170
	GRADIENT	-.00001	.00007	.00305	-.00021	.00007	.00005	-.02134	.00230	.00036

(RE8011) ( 12 AUG 75 )

AVES 11-073(0A148) -140A/B/C/R ORBITER

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AHES 11-073-1 )

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AHES 11-073(0A148) -140A/B/C/R ORBITER

(RE8011) ( 12 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 536.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDER = .000 SPOBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RUN NO. 88/ 0 RV/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.016	-3.905	.89950	-.02980	.12980	.03680	-.02980	.12980	.08400	-.01060	.00030
.014	.139	.89950	-.03400	.13116	.04170	-.03390	.13110	.00030	-.00070	-.00270
.024	4.220	.90040	-.02900	.13030	.03460	-.02890	.13040	-.08450	.08910	-.00490
	GRADIENT	.00023	.00010	.00006	-.00027	.00011	.00007	-.02074	.00242	-.00064

RUN NO. 89/ 0 RV/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.936	-3.911	.89830	.17950	.14000	.02590	.18870	.12740	.08480	-.01050	.00030
3.937	.151	.89990	.17350	.14030	.03040	.18270	.12810	.00200	-.00100	-.00400
3.940	4.207	.89930	.18570	.14050	.02240	.19490	.12740	-.08110	.00870	-.00760
	GRADIENT	.00012	.00076	.00006	-.00043	.00076	.00000	-.02044	.00237	-.00097

RUN NO. 90/ 0 RV/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.890	-3.900	.89990	.37900	.18140	.01300	.40030	.12760	.07564	-.00790	.00370
7.894	.145	.89990	.37870	.18130	.01370	.40110	.12750	-.00040	-.00040	-.00310
7.892	4.207	.89940	.39240	.18080	.00916	.40360	.12660	-.07690	.00670	-.00890
	GRADIENT	-.00019	.00042	-.00007	-.00048	.00077	-.00012	-.01881	.00180	-.00155

RUN NO. 91/ 0 RV/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.932	-3.884	.89990	.56460	.24980	.00160	.60400	.12760	.07550	-.00620	.00670
11.939	.149	.89930	.56160	.24760	.00520	.60070	.12610	-.00150	-.00130	-.00160
11.928	4.228	.89740	.55470	.24670	.00250	.59380	.12670	-.07900	.00390	-.00960
	GRADIENT	-.00031	-.00122	-.00038	.00011	-.00126	-.00011	-.01905	.00125	-.00201

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TABULATED FORCE DATA - 0A148 ( APES 11-073-1 )

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(REB012) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 EREF = 936.6900 IN.  
 SCALE = .0300

XPRP = 1076.6900 IN. XO  
 YPRP = .0000 IN. YO  
 ZPRP = 375.0000 IN. ZO

PARAMETRIC DATA  
 RUDDER = .000 SPORRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.057	-7.889	.59660	-18480	.11300	.01840	-19230	.09970	.15230	-.01510	-.00070
-4.036	-3.874	.59630	-19660	.12040	.02730	-20460	.10530	.07220	-.00500	-.00380
-4.017	.163	.59630	-20310	.12430	.03080	-21130	.10970	-.00010	-.00030	-.00310
-4.026	4.234	.59630	-19950	.12120	.02610	-20760	.10690	-.07460	.00430	-.00180
-4.040	8.307	.59530	-18260	.11220	.01840	-19000	.09910	-.15790	.01480	-.00420
	GRADIENT	-.00000	-.00037	.00010	-.00015	-.00037	.00007	-.01811	.00115	.00025

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.047	-7.924	.59630	.00010	.10540	.01640	.00020	.10640	.15100	-.01590	-.00470
.057	-3.897	.59630	-.00850	.11260	.02480	-.00840	.11260	.07200	-.00530	-.00110
.058	.160	.59660	-.01650	.11480	.02830	-.01640	.11480	.00040	-.00040	-.00300
.052	4.215	.59660	-.01270	.11340	.02290	-.01260	.11340	-.07200	.00460	-.00440
.048	8.271	.59690	.00230	.10610	.01560	.00240	.10610	-.15510	.01510	-.00920
	GRADIENT	.00004	-.00052	.00010	-.00023	-.00052	.00010	-.01775	.00122	-.00041

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.956	-7.937	.59690	.17680	.11320	.01820	.18420	.10070	.14910	-.01630	-.00910
3.958	-3.898	.59690	.17260	.11660	.02260	.18020	.10440	.07140	-.00540	-.00100
3.957	.162	.59690	.16700	.11800	.02570	.17480	.10620	.00210	-.00050	-.00330
3.954	4.202	.59690	.16990	.11730	.02000	.17650	.10540	-.07010	.00470	-.00700
3.960	8.252	.59590	.18200	.11160	.01460	.18930	.09880	-.15130	.01520	-.01390
	GRADIENT	.00000	-.00046	.00009	-.00032	-.00045	.00012	-.01747	.00125	-.00099

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.904	-7.922	.59690	.36440	.13300	.01720	.37930	.08160	.14210	-.01590	-.01400
7.913	-3.891	.59690	.36460	.13460	.01900	.37960	.08310	.06660	-.00510	.00270
7.912	.160	.59690	.36560	.13510	.02130	.37080	.08490	-.00060	-.00430	-.00300
7.910	4.204	.59690	.36000	.13460	.01570	.37510	.08380	-.06850	.00470	-.00950
7.909	8.256	.59690	.36900	.13100	.01240	.38350	.07900	-.14940	.01540	-.01930
	GRADIENT	.00000	-.00057	.00000	-.00041	-.00056	.00009	-.01669	.00121	-.00151

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 ,

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8012) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RUN NO. 96/ 0 RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.950	-7.379	.59660	.57490	.17530	.01190	.59870	.05250	.12970	-.01390	.01950
11.968	-3.871	.59660	.57080	.17740	.01690	.59520	.05520	.06030	-.00340	.09700
11.970	.156	.59660	.55840	.17510	.02180	.58250	.05550	-.00300	.00060	-.00360
11.968	4.216	.59660	.55870	.17670	.01330	.59300	.05490	-.06940	.00410	-.01370
11.959	8.279	.59660	.53330	.17320	.00530	.60650	.04860	-.14420	.01490	-.02560
	GRADIENT	-.00000	-.00026	-.00009	-.00045	-.00027	-.00004	-.01554	.00093	-.00236

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8013) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 97/ 0 RV/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.105	-3.886	1.39480	-.21040	.17580	.06230	-.22240	.16020	.07790	-.00620	.00220
4.030	.154	1.39550	-.21170	.17730	.06620	-.22360	.16200	-.00050	-.00010	-.00220
4.039	4.249	1.39350	-.20940	.17620	.06230	-.22130	.16110	-.08270	.00650	-.00630
	GRADIENT	-.00016	.00012	.00005	-.00000	.00014	.00011	-.01974	.00156	-.00104

RUN NO. 98/ 0 RV/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.033	-3.905	1.35590	-.00890	.15700	.02190	-.00900	.15700	.07210	-.00470	.00320
-.028	.144	1.39440	-.01100	.15750	.02500	-.01110	.15750	-.00040	.00030	-.00180
-.033	4.229	1.39470	-.00890	.15730	.02170	-.00900	.15780	-.07510	.00530	-.00570
	GRADIENT	-.00015	.00000	.00010	-.00003	.00000	.00010	-.01810	.00123	-.00122

RUN NO. 99/ 0 RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.851	-3.904	1.39440	.18310	.16400	-.01210	.19370	.15140	.06430	-.00250	.00480
3.949	.141	1.39470	.18450	.16380	-.01010	.19540	.15070	-.00080	.00030	-.00170
3.862	4.219	1.39320	.18770	.16450	-.01350	.19640	.15150	-.06710	.00320	-.00820
	GRADIENT	-.00015	.00057	.00006	-.00017	.00058	.00001	-.01618	.00070	-.00150



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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE8013) ( 12 AUG 75 )

AMES 11-073(0A148) -148A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 100/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
7.881	-3.904	1.39170	.37230	.19720	-.03730	.39580	.14430	.05910	-.00030	.00440
7.933	.128	1.39360	.37040	.19650	-.03510	.39430	.14350	-.00030	-.00170	-.00170
7.934	4.214	1.39440	.37800	.19840	-.04030	.40180	.14440	-.05990	.00110	-.00580
	GRADIENT	.00033	.00070	.00015	-.00037	.00074	.00001	-.01466	.00017	-.00175

RUN NO. 101/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.884	-3.887	1.39350	.55380	.25900	-.05980	.59520	.13940	.05510	-.00180	.00370
11.891	.152	1.39590	.55390	.25880	-.05970	.59440	.13930	-.00030	-.00010	-.00120
11.887	4.229	1.39440	.55290	.25950	-.06040	.59460	.14040	-.06640	.00160	-.00640
	GRADIENT	.00010	-.00011	.00011	-.00007	-.00007	.00012	-.01620	.00042	-.00124

RUN NO. 102/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
15.888	-3.863	1.39130	.72460	.34560	-.07520	.79150	.13400	.06070	-.00310	.00550
15.865	.152	1.39320	.72890	.34810	-.07840	.79630	.13550	-.00020	-.00010	-.00100
15.903	4.263	1.39590	.72450	.34770	-.07820	.79200	.13580	-.06350	-.00250	-.00710
	GRADIENT	.00057	-.00002	.00026	-.00012	.00006	.00022	-.01533	-.00069	-.00155

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8014) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 103/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-4.010	-3.884	1.24570	-.24750	.17580	.08890	-.25920	.15800	.07710	-.00760	.00250
-3.944	.148	1.24460	-.25180	.17570	.09310	-.26330	.15800	-.00110	-.00010	-.00290
-4.009	4.237	1.24540	-.24870	.17700	.08660	-.26050	.15920	-.09150	-.00720	-.00770
	GRADIENT	-.00004	-.00015	.00015	-.00004	-.00016	.00015	-.01959	.00182	-.00125



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(REB015) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN XO  
 LREF = 474.8000 IN. YMRP = .0000 IN YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SFDRK = 25.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RUN NO. 108/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-4.072	-3.851	1.10110	-29960	.17290	.10250	-31010	.15120	.07510	-.00750	-.00080
-4.070	.189	1.10150	-30800	.17350	.10650	-31950	.15120	-.00140	-.00010	-.00360
-4.075	4.283	1.09510	-29730	.17600	.09680	-30910	.15440	-.03160	.00790	-.00570
	GRADIENT	-.00074	.00017	.00038	-.00046	.00013	.00039	-.01927	.00189	-.00060

RUN NO. 109/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-0.11	-3.863	1.10150	-03980	.15040	.05290	-03980	.15040	.06830	-.00680	.00580
-0.04	.183	1.09830	-04810	.14990	.05990	-04810	.14990	-.00080	-.00020	-.00320
-0.07	4.260	1.09630	-03740	.15250	.05200	-03740	.15250	-.07330	.00670	-.01170
	GRADIENT	-.00039	.00030	.00026	-.00011	.00030	.00026	-.01743	.00166	-.00215

RUN NO. 110/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
3.931	-3.670	1.09670	.20440	.16690	.00960	.21540	.15250	.06680	-.00680	.00550
3.932	.189	1.09560	.19930	.16650	.01460	.21020	.15240	-.00060	-.00010	-.00280
3.935	4.249	1.09560	.21060	.16900	.00670	.22170	.15420	-.06800	.00590	-.01170
	GRADIENT	-.00014	.00076	.00026	-.00036	.00078	.00021	-.01660	.00156	-.00212

RUN NO. 111/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
7.884	-3.865	1.09670	.41090	.20850	-.01200	.43560	.15020	.06950	-.00660	.00530
7.965	.179	1.10000	.41140	.20520	-.01340	.43580	.14820	.00030	-.00050	-.00270
7.966	4.242	1.09820	.41460	.20980	-.01510	.43970	.15030	-.07020	.00730	-.00960
	GRADIENT	.00031	.00046	.00016	-.00038	.00051	.00001	-.01723	.00196	-.00186

RUN NO. 112/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.525	-3.850	1.09920	.60700	.27460	-.02650	.65060	.14330	.05960	-.00490	.01000
11.933	.177	1.09840	.61190	.27330	-.02970	.65510	.14090	-.00830	.00220	-.00100
11.928	4.259	1.09680	.60610	.27440	-.02670	.64970	.14320	-.07240	.00790	-.01160
	GRADIENT	-.00030	-.00011	-.00002	-.00002	-.00011	-.00001	-.01628	.00158	-.00266

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/E/C/R ORBITLR

(REJ016) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.6000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

## PARAMETRIC DATA

RUN NO. 113/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.023	-3.852	.90230	-28490	.10180	.06220	-.29130	.08150	.09280	-.01300	-.00360
-3.925	.188	.90150	-.28840	.10210	.06800	-.29470	.08210	.00000	-.00030	-.00410
-3.933	4.285	.90270	-.27830	.09990	.05840	-.29450	.08060	-.09570	.01250	-.00330
	GRADIENT	.00000	.00081	-.00023	-.00047	.00084	-.00011	-.02317	.00313	.00005

RUN NO. 114/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.017	-3.871	.90020	-.05270	.08570	.04610	-.05270	.08570	.09000	-.01340	.00100
.043	.183	.89890	-.05370	.08410	.05060	-.05360	.08420	-.00030	-.00040	-.00100
.037	4.263	.90040	-.04860	.08400	.04350	-.04850	.08400	-.09160	.01260	-.00650
	GRADIENT	.00002	.00050	-.00021	-.00032	.00052	-.00021	-.02733	.00320	-.00092

RUN NO. 115/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.891	-3.877	.90160	.15310	.09220	.03800	.15900	.08160	.09010	-.01280	.00200
4.016	.188	.90140	.15330	.09370	.04380	.15750	.08240	.00070	-.00040	-.00360
4.017	4.257	.90020	.16490	.09340	.03430	.17100	.08060	-.08880	.01210	-.00850
	GRADIENT	-.00017	.00145	.00002	-.00046	.00148	-.00012	-.02200	.00306	-.00129

RUN NO. 116/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.978	-3.868	.90080	.35470	.12940	.02720	.36930	.07830	.08040	-.00970	.00560
7.924	.181	.90040	.35870	.13010	.02550	.37330	.0794	.00030	-.00000	-.00240
7.921	4.257	.90200	.36120	.12820	.02480	.37540	.07720	-.08310	.00970	-.01070
	GRADIENT	.00015	.00080	-.00015	-.00030	.00075	-.00021	-.02012	.00239	-.00201

RUN NO. 117/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.516	-3.856	.90040	.53250	.19250	.02000	.56080	.07840	.07920	-.00760	.00820
11.928	.182	.90020	.53540	.19380	.02220	.56480	.07870	-.00010	-.00100	-.00160
11.917	4.273	.89940	.52940	.19190	.02010	.55750	.07800	-.08430	.00710	-.01160
	GRADIENT	-.00012	-.00038	-.00014	.00001	-.00041	-.00005	-.02711	.00181	-.00244

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE8017) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORBITTER

## REFERENCE DATA

SPREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

## PARAMETRIC DATA

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.112	-7.654	.59720	-.22310	.07270	.02880	-.22780	.05650	.15220	-.01540	.00030
-4.086	-3.838	.59580	-.23480	.07780	.03620	-.23980	.06090	.07390	-.00660	-.00230
-4.079	.201	.59720	-.24230	.07950	.03930	-.24730	.06210	-.00190	.00040	-.00360
-4.086	4.270	.59710	-.23410	.07650	.03410	-.23890	.05960	-.07950	.00720	-.00410
-4.101	8.352	.59540	-.22080	.07130	.02850	-.22540	.05540	-.16120	.01600	-.00550
	GRADIENT	.00004	.00009	-.00016	-.00026	.00011	-.00016	-.01892	.00170	-.00022

RUN NO. 118/ 0 RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.084	-7.892	.59650	-.03500	.06230	.02720	-.03490	.06240	.14970	-.01590	.00530
.094	-3.858	.59690	-.04230	.06710	.03400	-.04220	.05710	.07330	-.00670	.00020
.071	.198	.59660	-.04870	.06890	.03810	-.04870	.06900	-.00200	.00040	-.00340
.068	4.249	.59590	-.04220	.06670	.03260	-.04220	.06670	-.07740	.00720	-.00640
.061	8.308	.59620	-.03140	.06080	.02720	-.03130	.06090	-.15830	.01650	-.01060
	GRADIENT	-.00012	.00001	-.00005	-.00017	-.00000	-.00005	-.01859	.00171	-.00081

RUN NO. 120/ 0 RV/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.005	-7.903	.59590	.14410	.06490	.02670	.14830	.05470	.15030	-.01670	.00960
4.010	-3.865	.59620	.14130	.06940	.03290	.14580	.05940	.07320	-.00660	.00200
4.008	.197	.59660	.13260	.06990	.03770	.13710	.06050	-.00030	.00020	-.00370
4.011	4.242	.59620	.14240	.06320	.03190	.14690	.05910	-.07470	.00700	-.00880
4.014	8.290	.59590	.15240	.06430	.02640	.15660	.05350	-.15630	.01690	-.01540
	GRADIENT	.00000	.00013	-.00002	-.00012	.00013	-.00004	-.01824	.00168	-.00133

RUN NO. 121/ 0 RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.901	-7.891	.59630	.33450	.08280	.02350	.34270	.03610	.14370	-.01600	.01390
7.913	-3.864	.59630	.33290	.08490	.03010	.34140	.03820	.07230	-.00660	.00380
7.919	.190	.59550	.33060	.08520	.03410	.33920	.03630	.00050	.00020	-.00380
7.918	4.240	.59690	.33670	.08440	.02810	.34520	.03750	-.07180	.00710	-.01100
7.914	8.294	.59550	.34200	.08230	.02420	.35010	.03440	-.15130	.01610	-.02000
	GRADIENT	.00007	.00047	-.00006	-.00025	.00047	-.00011	-.01778	.00169	-.00183

(RE8017) ( 12 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
AMES 11-073(0A148) -140A/B/C/R ORBITER

DATE 08 MAY 76

PARAMETRIC DATA

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUN NO. 122/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.926	-7.055	.59650	.54610	.12360	.01810	.55980	.00810	.13510	-.01560	.02C10
11.949	-3.540	.59700	.54120	.12510	.02820	.55540	.01040	.06420	-.00490	.00820
11.954	.189	.59620	.53380	.12420	.03370	.54800	.01090	-.00190	.00110	-.00340
11.952	4.250	.59590	.54510	.12440	.02480	.55910	.00880	-.07050	.00690	-.01520
11.942	8.320	.59580	.55910	.12470	.01540	.57280	.00630	-.14770	.01630	-.02630
	GRADIENT	-.00014	.00049	-.00009	-.00042	.00046	-.00020	-.01665	.00146	-.00289

(RE8018) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

PARAMETRIC DATA

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUN NO. 123/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.050	-3.854	1.39820	-.20860	.16760	.05410	-.21990	.15240	.07560	-.00470	.00120
-4.042	.192	1.39650	-.21040	.16920	.05820	-.22180	.15400	-.00130	-.00210	-.00210
-4.051	4.285	1.39480	-.20860	.16760	.05430	-.21990	.15240	-.07980	.00440	-.00510
	GRADIENT	-.00042	.00000	-.00000	.00002	.00000	-.00000	-.01909	.00112	-.00077

RUN NO. 124/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.030	-3.874	1.39590	-.00820	.14930	.01660	-.00830	.14930	.06850	-.00300	.00240
-.025	.186	1.39590	-.00880	.14990	.01900	-.00880	.14990	-.00080	.00000	-.00160
-.030	4.265	1.39330	-.00840	.14950	.01610	-.00840	.14950	-.07190	.00320	-.00550
	GRADIENT	-.00032	-.00002	.00002	-.00006	-.00001	.00002	-.01725	.00076	-.00097

RUN NO. 125/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.919	-3.877	1.39440	.18740	.15640	-.01630	.19760	.14320	.06180	-.00080	.00390
3.922	.185	1.39480	.18660	.15660	-.01350	.19690	.14350	-.00010	.00010	-.00140
3.923	4.255	1.39290	.18610	.15640	-.01630	.19640	.14330	-.06400	.00100	-.00700
	GRADIENT	-.00018	-.00016	-.00000	-.00000	-.00015	.00001	-.01547	.00022	-.00134

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER (RE8018) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XPRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YPRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 126/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.792	-3.867	1.39320	.36880	.18840	-.03850	.39090	.13660	.05520	.00140	.00330
7.791	.182	1.39740	.35130	.18710	-.03570	.38330	.13640	-.00110	.00010	-.00170
7.919	4.252	1.39630	.37420	.19000	-.04160	.39680	.13670	-.05790	-.00130	-.00840
	GRADIENT	.00038	.00057	.00020	-.00038	.00073	.00001	-.01393	-.00033	-.00144

RUN NO. 127/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.807	-3.848	1.36630	.54500	.24850	-.05890	.58430	.13170	.06100	.00010	.00290
11.815	.187	1.36630	.54470	.24910	-.05740	.58420	.13220	-.00080	-.00020	-.00120
11.810	4.268	1.39780	.54320	.24900	-.05690	.58270	.13260	-.06340	-.00070	-.00520
	GRADIENT	.00009	-.00022	.00005	-.00000	-.00020	.00011	-.01533	-.00010	-.00100

RUN NO. 128/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
15.906	-3.833	1.39400	.72110	.33670	-.07400	.78580	.12620	.05700	.00500	.00450
15.920	.184	1.39360	.72670	.34100	-.07590	.79230	.12860	.00020	-.00020	-.00080
15.910	4.299	1.39780	.71910	.33870	-.07480	.78440	.12860	-.06020	-.00490	-.00590
	GRADIENT	.00047	-.00025	.00024	-.00010	-.00018	.00023	-.01441	-.00122	-.00128

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XPRP = 1075.6800 IN. XO  
 LREF = 474.8000 IN. YPRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

AMES 11-07310A148) -140A/B/C/R ORBITER (RE8019) ( 12 AUG 75 )

RUN NO. 131/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.048	-3.848	1.24760	-.24950	.16810	.08240	-.26110	.15000	.07410	-.00560	.00130
-3.974	.192	1.24720	-.25140	.16810	.08590	-.26250	.15030	-.00060	-.00030	-.00260
-3.984	4.283	1.24850	-.24670	.16970	.08070	-.25780	.15120	-.07840	.00500	-.00620
	GRADIENT	.00011	.00040	.00007	-.00021	.00041	.00015	-.01875	.00130	-.00092

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE8019) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 129/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-0.051	-3.861	1.24680	.01890	.14930	.03170	-.01900	.14920	.06760	-.00410	.00310
-0.007	.182	1.24680	-.01920	.14970	.03450	-.01920	.14970	-.00040	-.00020	-.00190
-0.013	4.263	1.24760	-.01770	.15040	.03080	-.01770	.15040	-.07100	.00370	-.00570
	GRADIENT	.00010	.00015	.00014	-.00011	.00016	.00015	-.01700	.00096	-.00121

RUN NO. 130/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.859	-3.873	1.24850	.19560	.15950	-.00560	.20590	.14600	.08220	-.00170	.00390
3.906	.178	1.24890	.19510	.16110	-.00480	.20560	.14740	.00080	.00010	-.00200
3.928	4.253	1.24790	.19610	.16110	-.00840	.20660	.14730	-.06330	.00160	-.00790
	GRADIENT	-.00007	.00006	.00020	-.00022	.00009	.00016	-.01544	.00041	-.00145

RUN NO. 132/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.851	-3.877	1.24910	.40000	.19740	-.03430	.42320	.14090	.05740	-.00050	.00320
7.971	.182	1.24720	.39550	.19660	-.03160	.41890	.13990	-.00050	-.00010	-.00210
7.972	4.253	1.24600	.40040	.19920	-.03440	.42420	.14180	-.05970	.00010	-.00760
	GRADIENT	-.00038	.00005	.00022	-.00001	.00012	.00011	-.01440	.00007	-.00135

RUN NO. 133/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.905	-3.844	1.24950	.59480	.26300	-.05150	.63630	.13460	.05820	-.00050	.00570
11.915	.187	1.24830	.59620	.26370	-.05030	.63780	.13490	-.00300	.00070	.00000
11.907	4.269	1.24720	.59160	.26400	-.05090	.63330	.13620	-.06240	.00050	-.00850
	GRADIENT	-.00028	-.00040	.00012	.00007	-.00037	.00020	-.01486	.00012	-.00175



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(RE8020) ( 12 AUG 75 )

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## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.047	-3.843	1.10190	-.29850	.16410	.07820	-.30940	.14270	.07090	-.00530	-.00200
-3.971	.189	1.10180	-.30460	.16460	.10260	-.31530	.14310	-.00140	-.00040	-.00340
-3.998	4.285	1.10300	-.3004	.16520	.09840	-.31120	.14380	-.07640	.00440	-.00400
	GRADIENT	.00014	-.00023	.00014	.00002	-.00022	.00014	-.01812	.00119	-.00025

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-0.036	-3.867	1.10100	-.04270	.14240	.05090	-.04270	.14240	.06390	-.00460	.00430
-0.059	.183	1.10150	-.05210	.14220	.05840	-.05220	.14210	-.00070	-.00050	-.00300
-0.052	4.251	1.10070	-.04730	.14350	.05190	-.04740	.14350	-.06810	.00370	-.01090
	GRADIENT	-.00004	-.00056	.00014	.00012	-.00058	.00014	-.01624	.00102	-.00176

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.856	-3.869	1.10100	.19930	.15750	.00970	.20940	.14380	.06130	-.00350	.00420
3.924	.189	1.10220	.19990	.15780	.01160	.21020	.14380	.00050	-.00040	-.00250
3.921	4.251	1.10070	.19990	.15840	.00800	.21020	.14430	-.06220	.00230	-.00980
	GRADIENT	-.00004	.00007	.00011	-.00021	.00010	.00006	-.01521	.00071	-.00172

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.863	-3.864	1.10070	.40170	.19690	-.00890	.42480	.14010	.06260	-.00460	.00280
7.865	.180	1.10070	.39980	.19560	-.00950	.42280	.13910	-.00040	-.00050	-.00280
7.863	4.247	1.10110	.40110	.19780	-.01220	.42440	.14100	-.06300	.00280	-.00750
	GRADIENT	.00005	-.00007	.00011	-.00041	-.00005	.00011	-.01548	.00091	-.00127

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.533	-3.846	1.10000	.60030	.26400	-.02350	.64180	.13450	.05240	-.00070	.00770
11.911	.188	1.10070	.60310	.26410	-.02570	.64460	.13400	-.00630	.00170	-.00040
11.905	4.263	1.10030	.59790	.26330	-.02440	.63940	.13430	-.06520	.00300	-.00870
	GRADIENT	.00004	-.00030	-.00009	-.00011	-.00030	-.00002	-.01450	.00046	-.00202

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8021) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RUN NO. 139/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.037	-3.849	.90120	-.29160	.09030	.06160	-.29730	.06950	.08630	-.01010	-.00570
-4.030	.192	.69330	-.30020	.09310	.06890	-.30600	.07180	-.00170	-.00010	-.00440
-4.042	4.289	.59550	-.29180	.08920	.05690	-.29730	.06840	-.09000	.00840	-.00130
	GRADIENT	-.00021	-.00002	-.00014	-.00058	.00000	-.00014	-.02166	.00227	.00054

RUN NO. 140/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.024	-3.875	.85790	-.05580	.07150	.04550	-.05580	.07160	.08370	-.01010	-.00070
.031	.186	.85320	-.05810	.07480	.05100	-.05800	.07480	-.00050	-.00050	-.00290
.021	4.265	.90040	-.05700	.07210	.04320	-.05700	.07210	-.09620	.00910	-.00440
	GRADIENT	.00031	-.00015	.00007	-.00028	-.00015	.00006	-.02087	.00236	-.00045

RUN NO. 141/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.922	-3.878	.89650	.15050	.08090	.04030	.15570	.07050	.08250	-.00890	-.00030
3.975	.188	.90080	.14650	.08360	.04610	.15190	.07330	.00150	-.00070	-.00330
3.972	4.260	.89320	.15220	.08170	.03680	.15750	.07100	-.08240	.00780	-.00580
	GRADIENT	.00009	.00021	.00010	-.00043	.00022	.00006	-.02026	.00205	-.00068

RUN NO. 142/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.906	-3.870	.89580	.34470	.11680	.03140	.35750	.06830	.07210	-.00550	-.00340
8.017	.186	.90020	.35080	.12170	.03220	.36430	.07160	-.00200	.00010	-.00230
8.014	4.257	.89930	.35200	.11950	.02880	.36530	.06920	-.07720	.00550	-.00810
	GRADIENT	.00006	.00090	.00033	-.00032	.00096	.00011	-.01337	.00135	-.00142

RUN NO. 143/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.639	-3.861	.90030	.52470	.18160	.02330	.55090	.06960	.06900	-.00290	-.00570
11.556	.190	.90030	.52410	.18300	.02650	.55060	.07050	-.00340	-.00080	-.00130
11.943	4.274	.89990	.52440	.18180	.02240	.54870	.06970	-.07800	.00220	-.00750
	GRADIENT	-.00005	-.00028	.00002	-.00011	-.00027	.00001	-.01807	.00063	-.00167

ISABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
AMES 11-073(0A148) -140A/B/C/R ORBITER

**JAMES 11-073(OA149) -140A/B/C/R ORBITER**

DATE 08 MAY 76

## REFERENCE DATA

=	2630.0000	SQ.FT.	=	1076.6800	IN. X0
=	474.8000	IN.	=	.0000	IN. Y0
=	936.6800	IN.	=	375.0000	IN. Z0
=	.0300				

RUDDER =	.000	SPOBRX =	.000
80FLAP =	.000	ELVN-L =	.000
ELVN-R =	-11.700	MACX =	.500

## PARAMETRIC DATA

ITEM NO	1444 / 0	BN/1 = 4.85	GRADIENT	INTERVAL = -5.00 /	5.00
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ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.045	-7.656	.59740	-.22500	.06120	.02820	-.22870	.04520	.14250	-.00190	-.00190
3.970	-3.843	.59730	.03340	.06660	.03470	-.23740	.05020	.07130	-.00540	-.00260
3.957	.189	.59570	-.23990	.06660	.03810	-.24400	.05190	.00060	-.00340	-.00340
3.965	4.271	.59630	-.23460	.06590	.03290	-.23860	.04960	.07930	.00630	-.00350
4.005	8.350	.59530	-.22050	.02710	.02710	-.22420	.04350	.15400	.01180	-.00340
	0.0000	.59610	.00000	.00000	.00022	-.00014	-.00007	.01856	-.00144	-.00011

RM NO	145/ 0	RN/1 =	4.86	GRADIENT	INTERVAL =	-5.00/	5.00
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ALPHA	BETA	MACH	CLU	CCU	CLMU	CNU	CAU	CY	CYN	CBL
-.025	-7.896	.59640	-.04510	.05060	.02760	-.04520	.05030	.14050	-.01130	-.00300
-.014	-3.863	.59640	-.05080	.05620	.03340	-.05080	.05620	.06950	-.00540	-.00020
.070	.189	.59660	-.05260	.05820	.03680	-.05250	.05830	.00190	.00030	-.00310
.063	4.250	.59590	-.05250	.05600	.03290	-.05250	.05610	.07610	.00610	.00570
.058	8.310	.59760	-.04050	.05050	.02750	-.04050	.05030	-.15030	.01210	-.00630
		.00005	.00021	.00002	-.00006	-.00021	-.00001	-.01795	-.00142	-.00068

PARAM NO	145/ 0	BN/1 = 4.87	GRADIENT INTERVAL = -5.00/ 5.00
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ALPHA	BETA	MACH	CLU	CDU	CLMU	CMU	CAU	CY	CYN	CBL
3.933	-7.911	.59760	.13690	.05320	.02800	.14020	.04370	.14000	-.01180	-.00720
3.936	-3.866	.59760	.13250	.05840	.03410	.13620	.04920	.06900	-.00490	-.00120
3.935	.172	.59760	.12640	.05930	.03770	.13010	.05050	.00010	-.00340	-.00120
4.026	.4.026	.59760	.13130	.05790	.03330	.13510	.04860	-.07270	.00560	-.00790
4.030	8.292	.59760	.14210	.05270	.02810	.14540	.04260	-.14740	.01230	-.01280
	0.0000	.00000	.00015	.00006	-.00010	-.00013	-.02007	-.01748	-.00130	-.00112

Q1/N	N0	147/ 0	BN/1 = 4.87	GRADIENT INTERVAL = -5.00/ 5.00
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	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
ALPHA	7.901	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
1	-7.896	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
2	-3.861	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
3	8.049	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
4	1.175	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
5	4.238	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
6	8.049	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
7	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
8	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
9	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
10	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
11	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
12	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
13	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
14	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
15	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
16	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
17	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
18	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
19	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
20	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
21	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
22	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
23	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
24	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
25	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
26	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
27	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
28	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
29	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
30	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
31	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
32	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
33	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
34	8.297	.59760	.32360	.07130	.02880	.33040	.02610	.13180	-.01030	.01110
35	8.297	.5976								

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB022) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = .500

RUN NO. 148/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.963	-7.850	.59790	.53840	.11210	.02320	.54990	-.00190	.12360	-.00560	.01720
11.985	-3.840	.59300	.53600	.11420	.03000	.54800	.00040	.05840	-.00280	.00710
12.000	.181	.59760	.52500	.11280	.03550	.53700	.00120	-.00430	.00120	-.00370
12.027	4.252	.59760	.53560	.11380	.02770	.54760	-.00030	-.06930	.00550	-.01440
12.070	8.324	.59760	.55090	.11350	.02020	.56250	-.00420	-.13900	.01120	-.02390
	GRADIENT	-.00005	-.00004	-.00005	-.00029	-.00004	-.00009	-.01578	.00103	-.00265

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB023) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 149/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.963	-3.856	1.39290	-.20000	.16380	.04680	-.21090	.14940	.07500	-.00470	.00110
11.985	.190	1.39300	-.20260	.16500	.05110	-.21350	.15070	-.00140	-.00040	-.00220
12.000	4.279	1.39130	-.20040	.16410	.04670	-.21130	.14970	-.07960	.00410	-.00510
	GRADIENT	-.00020	-.03005	.00004	-.00001	-.00005	.00004	-.01900	.00108	-.00076

RUN NO. 150/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.963	-3.877	1.39520	-.00080	.14710	.00810	-.00080	.14710	.06890	-.00330	.00230
11.985	.183	1.39520	-.00280	.14750	.01100	-.00270	.14750	-.00130	-.00010	-.00170
12.000	4.255	1.39360	.00170	.14750	.00710	.00170	.14750	-.07250	.00310	-.00560
	GRADIENT	-.00020	.00031	.00005	-.00012	.00031	.00005	-.01739	.00079	-.00097

RUN NO. 151/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.963	-3.879	1.39480	.19430	.15540	-.02340	.20440	.14170	.06090	-.00090	.00380
11.985	.183	1.39510	.19090	.15500	-.02270	.20110	.14150	-.00120	.00000	-.00170
12.000	4.247	1.39400	.19890	.15660	-.02320	.20320	.14180	-.06510	.00090	-.00710
	GRADIENT	-.00010	.00057	.00001	-.00015	.00059	.00001	-.01551	.00022	-.00134

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE8023) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 152/ 0 RV/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.933	-3.869	1.39290	.38070	.18980	-.04890	.40330	.13540	.05540	.00120	.00340
7.908	.178	1.39510	.38110	.18910	-.04720	.40350	.13490	-.00350	.00050	-.00160
7.872	4.245	1.39440	.38610	.19050	-.05190	.40560	.13580	-.05790	-.00120	-.00820
	GRADIENT	.00018	.00067	.00009	-.00037	.00365	.00005	-.01395	-.00030	-.00143

RUDDER = .000 SPOBRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 153/ 0 RV/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.931	-3.857	1.35210	.58290	.25260	-.07080	.60300	.13070	.06240	.00010	.00290
11.869	.183	1.35510	.58190	.25210	-.06970	.60170	.13110	.00080	-.00040	-.00110
11.865	4.258	1.35550	.58130	.25280	-.07110	.60130	.13200	-.06280	-.00070	-.00510
	GRADIENT	.00042	-.00020	.00002	-.00004	-.00021	.00016	-.01543	-.00007	-.00059

RUN NO. 154/ 0 RV/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
15.857	-3.836	1.39290	.73200	.33980	-.08540	.79570	.12590	.05750	.00490	.00440
15.871	.184	1.39290	.73650	.34310	-.08320	.80420	.12810	.00050	-.00020	-.00090
15.861	4.289	1.39670	.73170	.34060	-.08740	.79700	.12760	-.06650	-.00480	-.00520
	GRADIENT	.00047	-.00004	.00022	-.00012	.00003	.00021	-.01454	-.00119	-.00126

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 155/ 0 RV/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
15.982	-3.844	1.24680	-.23970	.16390	.07310	-.25050	.14680	.07330	-.00550	.00130
-3.977	.190	1.24650	-.24610	.16440	.07830	-.24390	.14590	-.00210	-.00350	-.00260
-3.980	4.277	1.24720	-.24130	.16440	.07290	-.25210	.14730	-.07850	.00480	-.00530
	GRADIENT	.00005	-.00019	.00007	-.00003	-.00019	.00066	-.01671	.00131	-.00054

RUDDER = .000 SPOBRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

(RE8024) ( 12 AUG 75 )

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DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C/R ORBITER

(RES224) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8300 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPDRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 156/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.039	-3.875	1.24630	-.00730	.14640	.02190	-.00720	.14640	.0310	-.00420	.00300
.042	.180	1.24760	-.00930	.14650	.02470	-.00990	.14650	-.00100	-.00020	-.00210
.044	4.251	1.24860	-.00610	.14760	.02050	-.00600	.14760	-.00170	.00360	-.00580
	GRADIENT	.00004	.00015	.00015	-.00017	.00015	.00015	-.00170	.00056	-.00121

RUN NO. 157/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.904	-3.572	1.24790	.20450	.15750	-.01700	.21470	.14330	.06130	-.00190	.00380
3.935	.182	1.24740	.20200	.15980	-.01540	.21240	.14470	-.00080	-.00010	-.00220
3.915	4.245	1.24720	.20800	.15930	-.01960	.21840	.14470	-.06430	.00150	-.00800
	GRADIENT	-.00009	.00043	.00022	-.00032	.00046	.00017	-.01547	.00042	-.00145

RUN NO. 158/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.877	-3.857	1.24760	.40930	.19700	-.04540	.43250	.13900	.05750	-.00080	.00330
7.882	.178	1.24890	.40750	.19580	-.04290	.43050	.13810	.00010	-.00020	-.00190
7.882	4.244	1.24570	.41100	.19900	-.04570	.43430	.13980	-.06020	.00030	-.00790
	GRADIENT	-.00023	.00021	.00012	-.00004	.00022	.00010	-.01452	.00014	-.00138

RUN NO. 159/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.916	-3.850	1.24500	.60590	.26440	-.06340	.64740	.13360	.05910	-.00090	.00590
11.928	.186	1.24700	.61120	.26490	-.06230	.65280	.13220	-.00170	.00050	.00010
11.922	4.256	1.24600	.60900	.26530	-.06370	.65060	.13380	-.06290	.00070	-.00840
	GRADIENT	-.00000	.00038	.00011	-.00004	.00039	.00002	-.01505	.00020	-.00176

DATE 08 MAY 76

TABULATED FORCE DATA - 0A143 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(PEB025) 1 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDER = .000 SPOBRK = .000  
 BOFLAP = .000 ELNVL = .000  
 ELVA-R = .000 PACH = 1.100

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.989	-3.842	1.09870	-28490	15960	.08590	-29530	.13930	.07050	-.00560	-.00190
-3.992	.191	1.09590	-29250	16060	.08920	-30300	.13990	-.00290	-.00440	-.00350
-3.987	4.273	1.09370	-28840	16130	.08520	-29900	.14060	-.07730	.00480	-.00440
	GRADIENT	.00000	-.00043	.00021	-.00003	-.00045	.00018	-.01823	.00128	-.00031

RUN NO. 160/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.053	-3.867	1.09840	-.02610	13870	.03730	-.02600	.13870	.05450	-.00510	.00420
.058	.181	1.09750	-.03630	13890	.04420	-.03610	.13890	-.00190	-.00350	-.00310
.056	4.249	1.09200	-.02690	13990	.03780	-.02670	.14000	-.06990	.00410	-.01020
	GRADIENT	-.00005	-.00010	.00015	.00005	-.00008	.00016	-.01656	.00113	-.00177

RUN NO. 161/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.942	-3.871	1.09710	.21190	15530	-.00200	.22210	.14030	.05170	-.00410	.00400
3.948	.177	1.09910	.20670	15560	.00120	.21700	.14100	-.00090	-.00260	-.00270
3.950	4.239	1.09720	.21520	15580	-.00470	.22550	.14160	-.06370	.00380	-.00990
	GRADIENT	.00001	.00041	.00019	-.00033	.00042	.00016	-.01546	.00093	-.00171

RUN NO. 162/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.932	-3.857	1.09830	.41880	19720	-.02390	.44200	.13750	.05130	-.00440	.00390
7.938	.185	1.09870	.42300	19640	-.02490	.44610	.13510	.00440	-.00070	-.00210
7.937	4.238	1.09870	.42270	19830	-.02590	.44610	.13810	-.06500	.00350	-.00770
	GRADIENT	.00005	.00048	.00014	-.00023	.00051	.00007	-.01560	.00093	-.00143

RUN NO. 163/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.570	-3.845	1.10120	.61780	26550	-.03920	.65360	.13160	.05280	-.00100	.00790
11.981	.187	1.09930	.62500	26620	-.04070	.65670	.13070	-.00320	.0014	-.00300
11.975	4.250	1.09320	.62230	26610	-.03920	.66400	.13120	-.06100	.00350	-.00900
	GRADIENT	-.00099	.00055	.00007	-.00012	.00055	-.00005	-.01469	.00093	-.00009

RUN NO. 164/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE0026) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6100 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RUN NO. 165/ 0 RV/L 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CLMU	CNU	CAU	CY	CYN	CBL
-3.986	-3.345	.89950	-27160	.04430	-27680	.08590	.08480	-.00970	-.00550
-3.977	.130	.89920	-27950	.02000	-28490	.06810	-.02210	-.00020	-.00430
-3.985	4.276	.89980	-27170	.04070	-27690	.08490	-.08930	-.00810	-.00120
GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT
			-.0001	-.0004	-.00001	-.00012	-.02141	.00219	.00054
RUN NO. 166/ 0 RV/L 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CLMU	CNU	CAU	CY	CYN	CBL
.061	-3.869	.89870	-.039	.02940	-.03940	.08880	.08330	-.01010	-.00090
.067	.174	.89830	-.041	.03480	-.04180	.06960	-.00110	-.00220	-.00300
.063	4.252	.89930	-.031	.02710	-.03790	.06890	-.08310	-.00860	-.00440
GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT
			.001	-.00029	.00006	-.00023	-.02074	.00230	-.00043
RUN NO. 167/ 0 RV/L 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CLMU	CNU	CAU	CY	CYN	CBL
3.954	-3.877	.89900	.16630	.02370	.17120	.08510	.08140	-.00890	-.00050
3.955	.186	.89730	.15980	.03000	.16480	.06680	.00020	-.00080	-.00360
3.963	4.243	.89830	.17280	.02040	.17770	.06550	-.08080	-.00740	-.00590
GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT
			.00080	-.00041	.00080	.00005	-.01997	.00201	-.00067
RUN NO. 168/ 0 RV/L 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CLMU	CNU	CAU	CY	CYN	CBL
7.926	-3.870	.89900	.36120	.01450	.37360	.08390	.07320	-.00580	-.00340
7.938	.179	.90050	.36940	.01600	.38110	.06570	-.00010	-.00020	-.00200
7.933	4.243	.89840	.36880	.01190	.38110	.06270	-.07530	-.00520	-.00810
GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT
			.00094	-.00032	.00092	-.00015	-.01830	.00136	-.00142
RUN NO. 169/ 0 RV/L 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CLMU	CNU	CAU	CY	CYN	CBL
11.533	-3.854	.89940	.54390	.00710	.56970	.08470	.07180	-.00390	-.00590
11.965	.189	.89890	.54710	.00980	.57330	.06600	-.00140	-.00110	-.00130
11.949	4.257	.89740	.53400	.00750	.55940	.08410	-.07720	.00250	-.00850
GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT	GRADIENT
			-.00122	.00005	-.00127	-.00007	-.01837	.00079	-.00178



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TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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(REB027) ( 12 AUG 75 )

AVES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RUN NO. 170/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-3.986	-7.853	.59690	-2.0630	.05610	.01420	-2.0970	.0160	.14270	-.01120	-.00160
-3.959	-3.841	.59620	-2.1680	.06100	.02110	-.22050	.04590	.07090	-.00580	-.00250
-3.949	.187	.59680	-2.2220	.06320	.02430	-.22600	.04790	-.00290	-.00010	-.00340
-3.957	4.268	.59650	-2.1590	.06080	.01890	-.21960	.04570	-.07830	.00580	-.00350
-3.972	8.340	.59650	-2.0350	.05530	.01370	-.20680	.04110	-.15420	.01170	-.00350
	GRADIENT	.00004	.00011	-.00003	-.00027	.00011	-.00003	-.01840	.00143	-.00012

RUN NO. 171/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
.056	-7.886	.59620	-0.2280	.04690	.01280	-.02280	.04690	.14100	-.01190	-.00330
.065	-3.960	.59590	-0.3210	.05160	.01980	-.03210	.05160	.07050	-.00580	-.00020
.070	.184	.59620	-0.3750	.05380	.02310	-.03740	.05380	-.00240	.00000	-.00320
.066	4.247	.59650	-0.3240	.05160	.01790	-.03230	.05170	-.07590	.00570	-.00580
.050	8.305	.59710	-0.2140	.04630	.01320	-.02130	.04630	-.15160	.01200	-.00840
	GRADIENT	.00007	-.00004	-.00000	-.00024	-.00002	.00001	-.01806	.00142	-.00069

RUN NO. 172/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
3.957	-7.887	.59590	.15880	.05100	.01300	.16200	.03990	.13990	-.01230	-.00750
3.961	-3.863	.59640	.15460	.05500	.01960	.15810	.04420	.07070	-.00540	-.00140
3.981	.188	.59690	.14960	.05640	.02900	.15320	.04590	.00090	-.00030	-.00350
3.978	4.237	.59560	.15130	.05490	.01840	.15480	.04430	-.07220	.00510	-.00790
3.980	8.292	.59560	.15960	.05040	.01290	.16270	.03920	-.14780	.01210	-.01290
	GRADIENT	-.00010	-.00041	-.00001	-.00015	-.00041	.00001	-.01764	.00130	-.00115

RUN NO. 173/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
7.936	-7.885	.59510	.34980	.07030	.01270	.35620	.02130	.13300	-.01130	-.01170
7.944	-3.857	.59380	.34560	.07080	.01800	.35210	.02240	.06810	-.00540	-.00310
8.045	.182	.59650	.34320	.07270	.02050	.35000	.02390	-.00140	.00010	-.00390
8.043	4.239	.59650	.34810	.07200	.01560	.35470	.02250	-.07030	.00540	-.01010
8.041	8.297	.59750	.35340	.07010	.01290	.35570	.02000	-.14120	.01070	-.01750
	GRADIENT	.00033	.00031	.00015	-.00030	.00032	.00001	-.01710	.00133	-.00163

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8027) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RUN NO. 174/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.909	-7.850	.59660	.55890	.11240	.00710	.57010	-.00530	.12390	-.01030	.01770
11.929	-3.836	.59670	.55270	.11230	.01580	.56400	-.00440	.05920	-.00340	.00740
11.930	.181	.59590	.54080	.11120	.02080	.55210	-.00300	-.00350	-.00090	-.00340
11.930	4.251	.59710	.55060	.11180	.01290	.56180	-.00440	-.06810	.00510	-.01430
11.920	8.317	.59500	.56340	.11250	.00560	.57450	-.00630	-.13900	.01070	-.02360
	GRADIENT	.00005	-.00025	-.00005	-.00036	-.00027	-.00000	-.01574	.00105	-.00268

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8028) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 175/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.978	-3.855	1.39280	-.15150	.18280	.01710	-.16380	.17190	.05030	.00790	.00320
-3.971	.185	1.39360	-.15890	.18530	.02300	-.16930	.17400	-.02860	.01340	-.00070
-3.978	4.270	1.39180	-.15270	.18470	.01940	-.16510	.17360	-.10760	.01870	-.00400
	GRADIENT	-.00012	-.00015	.00023	.00028	-.00016	.00021	-.01943	.00133	-.00089

RUN NO. 176/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-0.069	-3.876	1.39320	.04490	.16920	-.02340	.04470	.16920	.04580	.00760	.00470
-.045	.182	1.39400	.04120	.17220	-.01830	.04110	.17220	-.02500	.01180	-.00020
-.049	4.247	1.39290	.04130	.17330	-.01880	.04110	.17330	-.09660	.01630	-.00490
	GRADIENT	-.00004	-.00044	.00050	.00057	-.00044	.00049	-.01753	.00107	-.00118

RUN NO. 177/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.888	-3.879	1.39090	.24120	.18210	-.06120	.25300	.16540	.04220	.00800	.00630
3.892	.179	1.39330	.23620	.18390	-.05610	.24810	.16740	-.02190	.01030	.00030
3.896	4.241	1.39170	.24270	.18680	-.05860	.25490	.16990	-.08720	.01290	-.00590
	GRADIENT	.00010	.00018	.00058	.00032	.00023	.00055	-.01594	.00060	-.00150

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XRRP = 1076.6800 IN. XO RUDDER = -10.000 SPOBRK = 35.000  
LREF = 474.8000 IN. YRRP = .0000 IN. YO BOFLAP = 16.300 ELVN-L = 10.000  
BREF = 936.6800 IN. ZRRP = 375.0000 IN. ZO ELVN-R = .000 MACH = 1.400  
SCALE = .0300

PARAMETRIC DATA									
GRADIENT INTERVAL = -5.00/ 5.00									
RUN NO.	178/ 0	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
ALPHA	BETA								
7.940	-3.870	1.39060	.43610	.22270	-.09250	.46270	.16040	.03790	.00880
7.946	.176	1.39290	.43350	.22400	-.08850	.46030	.16190	-.01900	.00910
7.949	4.238	1.39140	.44170	.22790	-.09100	.46890	.16460	-.07960	.00970
	GRADIENT	.00010	.00069	.00064	.00018	.00077	.00052	-.01449	.00011

GRADIENT INTERVAL = -5.00/ 5.00									
RUN NO.	179/ 0	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
ALPHA	BETA								
11.863	-3.856	1.38940	.61830	.29070	-.11850	.66490	.15740	.04040	.00840
11.873	.179	1.39320	.61850	.29290	-.11610	.66550	.15940	-.01990	.00850
11.870	4.256	1.39140	.61590	.29480	-.11380	.66340	.16180	-.08330	.00920
	GRADIENT	.00025	-.00030	.00051	.00058	-.00019	.00054	-.01525	.00011

GRADIENT INTERVAL = -5.00/ 5.00									
RUN NO.	180/ 0	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
ALPHA	BETA								
15.854	-3.831	1.39170	.79090	.38410	-.13800	.86580	.15350	.03700	.01180
15.868	.178	1.38790	.79500	.38900	-.13820	.87080	.15590	-.01960	.00900
15.859	4.283	1.39140	.78290	.38590	-.13230	.85850	.15710	-.07990	.00490
	GRADIENT	-.00003	-.00099	.00021	.00071	-.00091	.00044	-.01441	-.00085

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XRRP = 1076.6800 IN. XO RUDDER = -10.000 SPOBRK = 35.000  
LREF = 474.8000 IN. YRRP = .0000 IN. YO BOFLAP = 16.300 ELVN-L = 10.000  
BREF = 936.6800 IN. ZRRP = 375.0000 IN. ZO ELVN-R = .000 MACH = 1.250  
SCALE = .0300

PARAMETRIC DATA									
GRADIENT INTERVAL = -5.00/ 5.00									
RUN NO.	181/ 0	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
ALPHA	BETA								
-3.986	-3.845	1.24530	-.18050	.18430	.03430	-.19290	.17130	.04490	.00500
-3.967	.186	1.24570	-.18500	.18700	.03900	-.19750	.17380	-.03400	.00050
-3.974	4.269	1.24430	-.18110	.18790	.03570	-.19370	.17490	-.11120	.00350
	GRADIENT	-.00012	-.00007	.00044	.00017	-.00010	.00044	-.01924	.00156

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB029) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPDRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 182/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.922	-3.871	1.24720	.04640	.17070	-.01770	.04630	.17080	.04350	.00770	.00590
3.922	.182	1.24470	.04440	.17390	-.01390	.04430	.17400	-.02850	.01340	.00020
3.925	4.246	1.24570	.04420	.17740	-.01490	.04410	.17740	-.09940	.01820	-.00470
	GRADIENT	-.00018	-.00027	.00083	.00034	-.00027	.00081	-.01761	.00129	-.00131

RUN NO. 183/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.922	-3.869	1.24570	.27070	.18870	-.06530	.28290	.16970	.03773	.00810	.00940
3.922	.180	1.24470	.26360	.19270	-.06050	.27620	.17420	-.02570	.01160	.00120
3.925	4.237	1.24570	.26920	.19550	-.06240	.28200	.17660	-.09080	.01500	-.00530
	GRADIENT	.00000	-.00018	.00084	.00036	-.00011	.00085	-.01585	.07085	-.00169

RUN NO. 184/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.990	-3.870	1.24330	.48590	.23760	-.10210	.51430	.16770	.03450	.00860	.01060
7.994	.176	1.24530	.48000	.23870	-.09650	.50850	.16960	-.02330	.01060	.00360
7.996	4.240	1.24470	.48130	.24200	-.09510	.51030	.17270	-.08450	.01260	-.00390
	GRADIENT	.00011	-.00057	.00054	.00086	-.00049	.00062	-.01467	.00049	-.00179

RUN NO. 185/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.923	-3.851	1.24380	.68400	.31270	-.12470	.73380	.16460	.03050	.00970	.01530
11.934	.177	1.24600	.68150	.31330	-.11940	.73160	.16560	-.02890	.01150	.00670
11.927	4.253	1.24430	.67500	.31410	-.11760	.72530	.16780	-.08740	.01260	-.00310
	GRADIENT	.00006	-.00111	.00017	.00068	-.00105	.00040	-.01455	.00036	-.00227

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8030) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SO.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.100

RUN NO. 186/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.994	-3.852	1.09990	-20770	18370	.03230	-21990	.16880	.03540	.01070	.00390
-3.985	.190	1.09960	-21920	18860	.03860	-23160	.17100	-.03920	.01660	.00110
-3.992	4.268	1.09950	-21470	18890	.03630	-22730	.17350	-.11400	.02220	-.00040
	GRADIENT	-.00005	-.60085	.00064	.00049	-.00091	.00058	-.01840	.00142	-.00053

RUN NO. 187/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.020	-3.866	1.05910	.04390	16900	-.01560	.04390	.16910	.03220	.00980	.00940
-.014	.187	1.05840	.03710	17200	-.01060	.03710	.17200	-.03560	.01530	.00230
-.017	4.244	1.09830	.04290	17440	-.01430	.04280	.17440	-.10250	.02060	-.00520
	GRADIENT	-.00010	-.00012	.00057	.00016	-.00014	.00065	-.01666	.00133	-.00180

RUN NO. 188/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.958	-3.869	1.10040	.29750	19230	-.06540	.31000	.17130	.02920	.00990	.01090
3.959	.177	1.10220	.29280	19500	-.06180	.30550	.17430	-.03140	.01410	.00260
3.960	4.234	1.09910	.29670	19800	-.06440	.30960	.17700	-.09510	.01830	-.00510
	GRADIENT	-.00016	-.00010	.00070	.00012	-.00005	.00070	-.01534	.00104	-.00197

RUN NO. 189/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
8.035	-3.862	1.09950	.52020	24510	-.09970	.54930	.17000	.02400	.01020	.01450
8.041	.181	1.09760	.51960	24830	-.09640	.54920	.17320	-.03590	.01480	.00760
8.040	4.238	1.09830	.51190	25030	-.09090	.54190	.17620	-.10080	.02050	-.00130
	GRADIENT	-.00015	-.00103	.00064	.00109	-.00091	.00077	-.01541	.00127	-.00195

RUN NO. 190/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.575	-3.843	1.09870	.71550	32070	-.11290	.76640	.16530	.01990	.01150	.01840
11.985	.181	1.09570	.71490	32310	-.10920	.76540	.16760	-.04190	.01660	.00790
11.977	4.250	1.09560	.70570	32480	-.10680	.75770	.17130	-.10470	.02140	-.00080
	GRADIENT	-.00038	-.00121	.00051	.00075	-.00108	.00074	-.01540	.00122	-.00237

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TABULATED FORCE DATA - 0A148 ( ARES 11-073-1 )  
 ARES 11-073(0A148) -140A/B/C/R ORBITTER

PAGE 38  
 (REB031) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

PARAMETRIC DATA

RUDER = -10.000  
 BOFLAP = 16.300  
 ELVN-L = 35.000  
 ELVN-R = 10.000  
 MACH = .900

RUN NO. 191/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00		CY		CYN		CBL	
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL	
-3.977	-3.852	.90060	.16570	.10710	-.01990	-.17270	.09540	.03260	.01180	.00150	
-3.975	.187	.90000	-.18370	.11430	-.00880	-.19120	.10130	-.05780	.02410	-.00190	
-3.986	4.269	.89870	-.18740	.11330	-.01000	-.19480	.10000	-.14470	.03450	-.00370	
	GRADIENT	-.00023	-.00267	.00076	.00122	-.00272	.00056	-.02183	.00279	-.00064	
RUN NO. 192/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00		CY		CYN		CBL	
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL	
-.002	-3.870	.85840	.06320	.09830	-.03630	.06320	.09830	.03050	.01070	.00700	
.000	.184	.85800	.04890	.10180	-.02540	.04890	.10180	-.05330	.02240	.00030	
-.010	4.247	.89700	.03970	.0390	-.02510	.03960	.10390	-.13850	.03340	.00530	
	GRADIENT	-.00017	-.00289	-.0639	.00138	-.00291	.00069	-.02082	.00280	-.00152	
RUN NO. 193/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00		CY		CYN		CBL	
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL	
3.984	-3.872	.89550	.29400	.11590	-.05470	.30130	.09520	.02750	.01070	.01100	
3.983	.184	.89890	.27820	.11830	-.04590	.28580	.09870	-.05520	.02120	.00460	
3.979	4.243	.89770	.27660	.12090	-.04970	.28430	.10140	-.13790	.03310	.00170	
	GRADIENT	-.00022	-.00214	.00062	.00062	-.00209	.00076	-.02038	.00276	-.00157	
RUN NO. 194/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00		CY		CYN		CBL	
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL	
8.057	-3.860	.89730	.49310	.16490	-.06630	.51130	.09420	.02070	.01250	.01620	
8.064	.187	.89550	.49450	.16890	-.06470	.51330	.09790	-.05680	.02210	.00780	
8.059	4.245	.89740	.49450	.17070	-.06330	.51350	.09970	-.13540	.03080	.00100	
	GRADIENT	.00001	.00017	.00072	-.00037	.00027	.00068	-.01926	.00226	-.00212	
RUN NO. 195/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00		CY		CYN		CBL	
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL	
11.980	-3.854	.89890	.66400	.23620	-.07230	.69860	.09320	.02840	.01180	.01750	
11.990	.184	.89580	.66530	.23930	-.06920	.70040	.09590	-.04830	.01790	.00910	
11.975	4.259	.89680	.65280	.23870	-.07320	.68810	.09810	-.12520	.02450	.00160	
	GRADIENT	-.00026	-.00138	.00031	-.00011	-.00130	.00060	-.01893	.00157	-.00235	

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(OA148) -140A/B/C/R ORBITER

(RE8032) PAGE 39 ( 12 AUG 75 )

## REFERENCE DATA

SREF	=	2690.0000	SQ.FT.
LREF	=	474.8000	IN.
BREF	=	936.6800	IN.
SCALE	=	.0300	

XMRP	=	1075.6800	IN.	X0
YMRP	=	.0000	IN.	Y0
ZMRP	=	375.0000	IN.	Z0

## PARAMETRIC DATA

RUDDER =	-10.000	SPDRK =	35.000
BOFLAP =	16.300	ELVN-L =	10.000
ELVN-R =	.000	MACH =	.500

RUN NO. 196/ 0    RN/L = 4.82    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.052	-7.850	.59660	-.09730	.07360	-.04090	-.10220	.08650	.09970	.00410	.00840
-4.036	-3.835	.59550	.10980	.08050	-.03420	-.11520	.07290	.02050	.01370	.00460
-4.020	.192	.59550	-.11360	.08420	-.03270	-.11920	.07600	-.05600	.02090	.00290
-4.028	4.273	.59680	-.10940	.08120	-.03720	-.11480	.07320	-.13470	.02840	.00130
-4.045	8.346	.59680	-.09920	.07780	-.04120	-.10450	.07060	-.21060	.03450	.00130
	GRADIENT	.00004	.00005	.00004	-.00037	.00005	.00005	-.01514	.00181	-.00041

RUN NO. 197/0 RM/L = 4.81

ALPHA	BETA
.034	-7.883
.043	-3.857
.045	.186
.041	4.251
.035	8.312
	GRADIENT

MACH	CLU	CDU
.59630	.08760	.07240
.59620	.07950	.07870
.59620	.07160	.08190
.59520	.07750	.08010
.59620	.08500	.07700
.00000	-.00025	.00017

GRADIENT INTERVAL = -5.00/ 5.00

CYN	CBL
.00310	.01430
.01290	.00810
.02020	.00410
.02800	.00010
.03400	-.00250
.00186	-.00099

RUN NO. 1987 0 RN/L = 4.81

ALPHA	BETA
+0.014	-7.879
+0.016	-3.855
+0.015	.196
+0.015	4.243
+0.018	8.295
	GRADIENT

MACH	CLU	COU
59590	.27450	.08440
59590	.26970	.08930
59560	.26470	.09110
59620	.27040	.09200
59550	.27860	.08870
00004	.00009	.00033

GRADIENT INTERVAL = -5.00/ 5.00

CYN	CBL
.00240	.01990
.01270	.01180
.01960	.00570
.02720	.00000
.03440	-.00580
.00179	-.00146

RUN NO. 199/ 0 RN/L = 4.82

ALPHA	BETA
8.080	-7.877
8.089	-3.848
8.637	.189
8.086	4.243
8.382	8.301
	GRADIENT

ACH	CLU	COU
59680	.47610	.11350
59660	.47080	.11450
56650	.46500	.11710
59650	.47290	.11980
59540	.47760	.11780
000001	.00026	.00066

**GRADIENT INTERVAL = -5.00/ 5.00**

CYN	CBL
.00070	.02690
.01160	.01530
.01870	.00660
.02680	-.00070
.03450	-.00890
.00185	-.00198

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8032) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

PARAMETRIC DATA  
 RUDDER = -10.000 SPDRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .600

RUN NO. 200/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
12.017	-7.830	.59690	.68420	.16580	-.05520	.70370	.01970	.08210	.00120	.03380
12.037	-3.825	.59650	.68110	.16810	-.04870	.70120	.02240	.00980	.01270	.02050
12.038	.185	.59650	.67220	.16740	-.04770	.69240	.02350	-.05660	.01890	.00970
12.033	4.256	.59620	.68070	.16930	-.05800	.70110	.02360	-.12420	.02580	-.00270
12.024	8.318	.59510	.69370	.16860	-.06350	.71360	.02040	-.19980	.03400	-.01400
	GRADIENT	-.00005	-.00004	.00015	-.00115	-.00001	.00015	-.01658	.00162	-.00287

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8033) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

RUN NO. 201/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-4.110	-3.848	1.39590	-.16050	.18470	.02260	-.17330	.17280	.10350	-.01750	.00120
-4.105	.195	1.39520	-.16530	.18580	.02590	-.17820	.17350	.02360	-.01210	.00330
-4.114	4.277	1.39440	-.16060	.18430	.01980	-.17340	.17230	-.05620	-.00600	-.00710
	GRADIENT	-.00018	-.00001	-.00005	-.00035	-.00001	-.00006	-.01965	.00142	-.00094

RUN NO. 202/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-.049	-3.866	1.39360	.04000	.17100	-.01760	.03990	.17110	.09510	-.01490	.00190
-.046	.181	1.39590	.03790	.17030	-.01660	.03780	.17040	.02310	-.01060	.00290
-.050	4.256	1.39370	.04360	.16870	-.02240	.04340	.16870	-.04970	-.00610	-.00780
	GRADIENT	.00001	.00044	-.00028	-.00059	.00043	-.00030	-.01783	.00108	-.00119

RUN NO. 203/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
3.895	-3.869	1.39400	.23700	.18450	-.05630	.24900	.16800	.08950	-.01160	.00290
3.895	.190	1.39670	.23380	.18230	-.05430	.24560	.16500	.01920	-.00900	-.00330
3.896	4.246	1.39360	.24160	.18150	-.06010	.25330	.16470	-.04560	-.00960	-.00560
	GRADIENT	-.00005	.00057	-.00037	-.00047	.00053	-.00041	-.01614	.00062	-.00154



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE8033) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 204/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
7.947	-3.865	1.39200	.43190	.22450	-.08620	.45880	.16270	.07780	.00840	.00200	
7.946	.185	1.39550	.42750	.22180	-.08580	.45400	.16060	.01820	-.00780	-.00460	
7.944	4.238	1.39520	.43090	.22100	-.08970	.45730	.15930	-.04080	-.00780	-.01090	
	GRADIENT	.00039	-.00012	-.00043	-.00043	-.00018	-.00042	-.01464	.00007	-.00159	

RUN NO. 205/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
11.859	-3.851	1.35470	.60730	.29040	-.11050	.65400	.15940	.08380	.00910	.00120	
11.855	.189	1.35630	.61000	.28650	-.11230	.65630	.15590	.01850	-.00760	-.00480	
11.860	4.253	1.39550	.60900	.28820	-.11470	.65620	.15650	-.04750	-.00590	-.00930	
	GRADIENT	.00010	.00021	-.00027	-.00052	.00015	-.00031	-.01620	.00039	-.00130	

RUN NO. 206/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
15.849	-3.830	1.39210	.77900	.38190	-.12950	.85370	.15470	.07860	.00400	.00250	
15.859	.186	1.39360	.78260	.38360	-.13350	.85760	.15510	.01730	-.00670	-.00380	
15.851	4.283	1.39930	.78010	.38130	-.13410	.85460	.15370	-.04380	-.00990	-.01080	
	GRADIENT	.00089	.00013	-.00009	-.00057	.00011	-.00012	-.01509	-.00073	-.00164	

AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE8034) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 207/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
-4.064	-3.845	1.24890	-.18710	.18700	.03990	-.19990	.17330	.10610	.02010	-.00020	
-4.041	.192	1.24760	-.19080	.18650	.04360	-.20350	.17260	.02830	-.01400	-.00440	
-4.051	4.275	1.24740	-.18710	.18480	.03780	-.19970	.17110	-.05040	-.00740	-.00890	
	GRADIENT	-.00018	.00000	-.00027	-.00026	.00003	-.00027	-.01927	.00156	-.00107	

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 AMES 11-07310A148) -140A/B/C/R ORBITER

(REB03: ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XPRP = 1076.6800 IN. XO RUDDER = 10.000 SF086K = 35.000  
 LREF = 474.8000 IN. YPRP = .0000 IN. YO BOFLAP = 16.300 ELVN-L = .000  
 BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = 1.250  
 SCALE = .0300

PARAMETRIC DATA

RUN NO. 208/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
-0.32	-3.867	1.24880	.04560	.17450	-.01290	.04550	.17460	.09850	-.00180
-0.029	.184	1.24740	.04350	.17280	-.01160	.04340	.17280	.02700	-.00340
-0.035	4.251	1.24660	.04470	.17200	-.01600	.04460	.17200	-.04510	-.00900
GRADIENT		1.24600	-.00011	-.00031	-.00038	-.00011	-.00032	-.01769	-.00133
		1.24520	-.00027						
RUN NO. 209/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
3.926	-3.871	1.24530	.26700	.19230	-.05820	.27950	.17360	.06920	-.00230
3.924	.180	1.24740	.26330	.19080	-.05720	.27570	.17230	.02400	-.00330
3.934	4.244	1.24630	.26490	.18890	-.06280	.27720	.17030	-.04140	-.01130
GRADIENT		1.24510	-.00026	-.00042	-.00057	-.00028	-.00041	-.01609	-.00163
		1.24430							
RUN NO. 210/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
7.988	-3.866	1.24720	.47290	.23730	-.08900	.50130	.16930	.08370	-.00230
7.987	.186	1.24720	.47040	.23530	-.09220	.49850	.16770	.02120	-.00590
7.988	4.237	1.24790	.47740	.23570	-.09710	.50560	.16710	-.03820	-.01350
GRADIENT		1.24700	.00056	-.00020	-.00100	.00053	-.00027	-.01504	-.00195
		1.24600							
RUN NO. 211/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
11.921	-3.850	1.24700	.66740	.30940	-.11280	.71690	.16490	.08390	-.00330
11.932	.189	1.24660	.67630	.30950	-.11650	.72570	.16300	.02160	-.00610
11.924	4.253	1.24300	.67350	.30880	-.11850	.72270	.16300	-.03760	-.01600
GRADIENT		1.24200	.00075	-.00007	-.00070	.00071	-.00023	-.01499	-.00238
		1.24100							

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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(RE8035) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XPRP = 1076.6800 IN. X0  
 YPRP = .0000 IN. Y0  
 ZPRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = 10.000 SPDRBK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.100

RUN NO. 212/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.064	-3.646	1.10270	.22200	.18650	.04300	-.23470	.17030	.10610	-.02120	-.00410
-4.062	.195	1.10080	-.22770	.18590	.04290	-.24030	.16930	.03210	-.01560	-.00640
-4.062	4.274	1.10040	-.22110	.18380	.03880	-.23360	.16770	.04400	-.00930	-.00810
	GRADIENT	-.00023	.00011	-.00033	-.00052	.00014	-.00032	-.01849	.00147	-.00049

RUN NO. 213/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.023	-3.663	1.09820	.03840	.17170	-.01070	.03830	.17180	.09900	-.01980	-.00080
-.020	.185	1.09560	.03170	.16950	-.00490	.03160	.16950	.03170	-.01460	-.00690
-.024	4.249	1.09550	.03770	.16780	-.01100	.03760	.16780	-.03850	-.00870	-.01350
	GRADIENT	.00010	-.00009	-.00048	-.00004	-.00009	-.00049	-.01695	.00137	-.00176

RUN NO. 214/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.952	-3.663	1.09800	.28630	.19440	-.05600	.29900	.17420	.09480	-.01690	-.00110
3.952	.189	1.09880	.28250	.19250	-.05370	.29510	.17270	.02770	-.01340	-.00640
3.960	4.243	1.09800	.29200	.19080	-.06100	.30450	.17020	-.03630	-.00900	-.01420
	GRADIENT	-.00000	.00070	-.00044	-.00062	.00068	-.00049	-.01617	.00122	-.00188

RUN NO. 215/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
8.030	-3.662	1.09930	.50010	.24510	-.08340	.52950	.17290	.09560	-.01920	-.00040
8.038	.183	1.09840	.51080	.24290	-.08810	.53980	.16910	.03130	-.01400	-.00820
8.037	4.237	1.09840	.51710	.24310	-.09390	.54300	.16850	-.03360	-.00840	-.01630
	GRADIENT	-.00011	.00216	-.00025	-.00130	.00204	-.00054	-.01595	.00133	-.00266

RUN NO. 216/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.575	-3.642	1.09950	.69530	.31990	-.09860	.74650	.16870	.09250	-.01770	-.00330
11.586	.188	1.09840	.70770	.31830	-.10440	.75830	.16440	.02560	-.01140	-.00690
11.581	4.246	1.09800	.70840	.31640	-.10720	.75870	.16250	-.03920	-.00570	-.01790
	GRADIENT	-.00020	.00162	-.00043	-.00106	.00151	-.00077	-.01623	.00148	-.00262

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB036) 12 AUG 75

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1976.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBPK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 217/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
-4.053	-3.644	.90210	-.20100	.11530	-.00160	-.20870	.10080	.13810	-.00100
-4.055	.194	.90170	-.19800	.11530	-.00220	-.20560	.10100	.04960	-.00400
-4.060	4.272	.90110	-.17980	.10800	-.01630	-.18700	.09500	-.03990	-.00520
	GRADIENT	-.00012	.00262	-.00057	-.00181	.00268	-.00072	-.02193	-.00064
RUN NO. 218/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
-.042	-3.866	.90110	.04210	.10340	-.02170	.04220	.10330	.13480	-.00140
.092	.183	.90020	.04940	.10180	-.02230	.04960	.10180	.04880	-.00490
.085	4.248	.89350	.06090	.09800	-.03270	.06110	.09790	-.03730	-.01050
	GRADIENT	-.00020	.00232	-.00067	-.00136	.00233	-.00067	-.02121	-.00147
RUN NO. 219/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
3.973	-3.873	.89950	.26530	.12050	-.01170	.27310	.10180	.13510	-.00360
3.981	.185	.89980	.27250	.11880	-.03980	.28010	.09960	.04860	-.01030
3.986	4.242	.89850	.28430	.11510	-.04810	.29170	.09500	-.03530	-.01590
	GRADIENT	-.00012	.00234	-.00067	-.00079	.00229	-.00084	-.02107	-.00152
RUN NO. 220/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
8.050	-3.862	.89990	.47360	.16780	-.05850	.49250	.09930	.12620	-.00140
8.064	.184	.89990	.48590	.16810	-.05760	.50470	.09830	.04700	-.00960
8.061	4.239	.89930	.48530	.16320	-.06030	.50430	.09340	-.03200	-.01830
	GRADIENT	-.00007	.00157	-.00057	-.00022	.00146	-.00080	-.01953	-.00209
RUN NO. 221/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
11.531	-3.854	.90060	.64850	.23690	-.06660	.68350	.09770	.11770	-.00080
11.945	.188	.89970	.65520	.23670	-.06390	.69000	.09600	.03870	-.00940
11.935	4.259	.89900	.65100	.23470	-.06790	.68550	.09500	-.04120	-.02000
	GRADIENT	-.00020	.00031	-.00027	-.00016	.00024	-.00033	-.01959	-.00256

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TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C/R ORBITER

(PE8037) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .600

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.041	-7.848	.59650	-.10290	.07840	-.03810	-.10820	.07100	.20230	-.03290	-.00410
-4.025	-3.846	.59720	-.11330	.08240	-.03220	-.11880	.07430	.12660	-.02600	-.00590
-3.896	.184	.59720	-.11370	.08420	-.02850	-.11920	.07630	.04880	-.01850	-.00790
-3.930	4.266	.59690	-.10880	.08080	-.03190	-.11410	.07310	-.02870	-.01170	-.00910
-3.946	8.339	.59690	-.09640	.07350	-.03710	-.10120	.06670	-.11050	-.00200	-.01200
	GRADIENT	-.00004	.00056	-.00020	.00004	.00058	-.00015	-.01914	.00176	-.00039

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.030	-7.898	.59660	.08060	.07730	-.04120	.08070	.07730	.19910	-.03270	-.00040
.040	-3.863	.59660	.07200	.08060	-.03400	.07210	.08050	.12530	-.02550	-.00450
.104	.181	.59660	.06940	.08180	-.03060	.06950	.08170	.04900	-.01820	-.00890
.102	4.244	.59620	.07490	.07910	-.03380	.07500	.07900	-.02700	-.01110	-.01240
.019	8.303	.59660	.08440	.07230	-.03950	.08440	.07230	-.10790	-.00130	-.01750
	GRADIENT	-.00005	.00036	-.00019	.00002	.00036	-.00019	-.01879	.00178	-.00097

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.036	-7.909	.59660	.26430	.08820	-.04430	.26990	.06940	.19700	-.03270	.00250
4.041	-3.867	.59630	.26400	.09140	-.03880	.26970	.07260	.12270	-.02440	-.00440
4.040	.186	.59630	.25430	.09080	-.03350	.26000	.07270	.04730	-.01710	-.01060
4.044	4.237	.59590	.26350	.08910	-.03680	.26920	.07030	-.02670	-.01020	-.01610
4.049	8.284	.59590	.27330	.08380	-.04100	.27850	.06430	-.10720	-.00020	-.02350
	GRADIENT	-.00005	-.00006	-.00028	.00025	-.00006	-.00028	-.01843	.00175	-.00144

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.972	-7.894	.59630	.45930	.11510	-.04960	.47080	.05030	.19370	-.03190	.00560
7.984	-3.864	.59660	.45900	.11630	-.04500	.47070	.05140	.12020	-.02340	-.00380
7.930	.171	.59730	.45470	.11470	-.03900	.46620	.05040	.04730	-.01590	-.01180
7.990	4.234	.59690	.45750	.11210	-.04070	.46870	.04740	-.02320	-.00910	-.01920
7.988	8.288	.59620	.46500	.11050	-.04350	.47680	.04470	-.10570	.00120	-.02970
	GRADIENT	.00004	-.00018	-.00052	.00053	-.00025	-.00049	-.01796	.00177	-.00190

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TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE8037) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

RUN NO. 226/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.959	-7.860	.59650	.67190	.16460	-.05640	.69150	.02180	.18550	-.03020	.01120
11.981	-3.846	.59700	.67080	.16670	-.04950	.69080	.02390	.11360	-.00090	-.00090
11.991	.172	.59700	.66660	.16650	-.04270	.68670	.02440	.04280	-.01370	-.01290
11.985	4.243	.59650	.66680	.16590	-.04630	.68670	.02380	-.02520	-.00800	-.02320
11.975	8.313	.59680	.67550	.16320	-.05150	.69470	.01950	-.10480	.00250	-.03440
	GRADIENT	-.00006	-.00049	-.00010	.00039	-.00051	-.00001	-.01716	.00155	-.00276

AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE8038) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 227/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-4.002	-3.853	1.39320	-.14810	.21770	.04490	-.16300	.20690	.08100	-.00740	.00360
-3.940	.193	1.39400	-.15010	.22060	.05040	-.16490	.20970	.00280	-.00220	.00000
-3.950	4.276	1.39210	-.14560	.21930	.04470	-.16040	.20880	-.07530	.00240	-.00270
	GRADIENT	-.00014	.00031	.00020	-.00003	.00032	.00025	-.01923	.00121	-.00077

RUN NO. 228/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
.030	-3.869	1.39400	.05210	.20690	.00040	.05220	.20690	.07500	-.00650	.00560
.036	.183	1.39320	.04990	.20760	.00520	.04990	.20760	.00390	-.00210	.00020
.034	4.255	1.39210	.05280	.20830	.00100	.05300	.20820	-.06670	.00130	-.00410
	GRADIENT	-.00023	.00009	.00017	.00007	.00010	.00016	-.01744	.00096	-.00119

RUN NO. 229/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
3.894	-3.872	1.39240	.24670	.22060	-.03940	.26110	.20330	.06850	-.00490	.00710
3.895	.183	1.39400	.24170	.22060	-.03470	.25610	.20370	.00460	-.00250	.00070
3.906	4.246	1.39330	.24680	.22230	-.03800	.26140	.20500	-.06000	-.00100	-.00480
	GRADIENT	.00011	.00001	.00021	.00017	.00004	.00021	-.01583	.00048	-.00147

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TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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(RE8039) ( 12 AUG 75 )

AVES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

RUN NO. 230/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.922	-3.861	1.39170	.44040	.26080	-.07440	.47210	.19760	.06340	-.00320	.00780
7.892	.182	1.3947	.44030	.26130	-.07300	.47200	.19840	.00560	-.00260	.00090
7.830	4.245	1.39400	.43810	.26210	-.07250	.46970	.19990	-.05330	-.00330	-.00520
	GRADIENT	.00028	-.00028	.00016	.00023	-.00030	.00028	-.01440	-.00001	-.00160

RUN NO. 231/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.870	-3.851	1.39320	.62020	.32850	-.10200	.67450	.19390	.06590	-.00320	.00760
11.880	.187	1.39400	.62630	.33030	-.10360	.68090	.19430	.00560	-.00260	.00200
11.873	4.255	1.39510	.61770	.33090	-.09990	.67260	.19670	-.05950	-.00190	-.00380
	GRADIENT	.00023	-.00031	.00030	.00026	-.00024	.00035	-.01547	.00015	-.00141

RUN NO. 232/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
15.853	-3.829	1.39290	.79170	.42090	-.12300	.87660	.18860	.06210	.00050	.01040
15.866	.185	1.39130	.79420	.42360	-.12430	.87980	.19030	.00400	-.00250	.00260
15.858	4.285	1.39440	.78920	.42460	-.12240	.87520	.19270	-.05640	-.00590	-.00490
	GRADIENT	.00019	-.00031	.00046	.00008	-.00018	.00051	-.01461	-.00079	-.00189

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.250

RUN NO. 233/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.991	-3.847	1.24630	-.16870	.22320	.05880	-.18380	.21100	.07990	-.00850	.00390
-3.979	.190	1.24590	-.17600	.22320	.06480	-.19120	.21240	.00350	-.00270	.00030
-3.988	4.277	1.24700	-.17020	.22530	.05920	-.18540	.21290	-.07220	.00220	-.00260
	GRADIENT	.00009	-.00018	.00026	.00005	-.00019	.00023	-.01872	.00132	-.00080

(RE8039) ( 12 AUG 75 )

AVES 11-073(0A148) -140A/B/C/R ORBITER

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(RE8039) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.250

RUN NO. 234/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
.058	-3.868	1.24680	.06110	.21160	.00300	.06140	.21150	.07440	-.00720	.00550
.062	.177	1.24720	.05970	.21200	.00570	.05990	.21190	.00420	-.00220	.00030
.021	4.254	1.24630	.06090	.21330	.00160	.06090	.21330	-.06490	.00100	-.00360
	GRADIENT	-.00006	-.00002	.00021	-.00017	-.00006	.00022	-.01715	.00101	-.00112

RUN NO. 235/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
3.934	-3.873	1.24820	.28140	.23030	-.04850	.29660	.21050	.06790	-.00570	.00750
3.935	.189	1.24630	.27660	.23150	-.04530	.29180	.21190	.00500	-.00260	.00060
3.939	4.242	1.24630	.28310	.23150	-.05050	.29830	.21150	-.05840	-.00100	-.00470
	GRADIENT	-.00023	.00021	.00015	-.00025	.00021	.00012	-.01556	.00058	-.00150

RUN NO. 236/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
7.936	-3.863	1.24760	.49250	.27580	-.08730	.52580	.20520	.06160	-.00470	.01060
7.897	.182	1.24720	.49150	.27660	-.08750	.52480	.20650	.00640	-.00290	.00190
7.878	4.243	1.24530	.49760	.27740	-.09200	.53090	.20660	-.05110	-.00320	-.00550
	GRADIENT	-.00028	.00063	.00020	-.00058	.00063	.00017	-.01390	.00018	-.00199

RUN NO. 237/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
11.869	-3.849	1.24660	.69530	.35040	-.11620	.75250	.19990	.05840	-.00320	.01380
11.810	.187	1.24820	.69650	.35060	-.11700	.75350	.20060	.00570	-.00270	.00280
11.866	4.252	1.24760	.69500	.35120	-.11750	.75230	.20080	-.05240	-.00340	-.00590
	GRADIENT	.00012	-.00004	.00010	-.00016	-.00003	.00011	-.01368	-.00002	-.00243



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE8040) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.100

RUN NO. 238/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-3.999	-3.842	1.10260	-1.9040	.22410	.05040	-.20560	.21020	.07860	-.00830	.00250
-3.997	.194	1.10300	-.19980	.22490	.05360	-.21500	.21040	.00600	-.00410	.00050
-3.996	4.277	1.09960	-.19400	.22600	.05100	-.20930	.21200	-.06580	-.00060	.00010
	GRADIENT		-.00044	.00023	.00007	-.00045	.00022	-.01754	.00095	-.00030

RUN NO. 239/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
.015	-3.867	1.10120	.06720	.20750	-.00680	.06720	.20750	.07170	-.00800	.00700
.018	.181	1.09910	.06290	.20690	-.00310	.06290	.20690	.00690	-.00410	.00070
.012	4.250	1.10000	.06840	.20750	-.01020	.06840	.20520	-.05780	-.00110	-.00440
	GRADIENT		.00015	-.00025	-.00042	.00015	-.00025	-.01596	.00085	-.00140

RUN NO. 240/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
3.919	-3.865	1.10070	.32050	.23010	-.06140	.33550	.20770	.06540	-.00700	.00910
3.917	.178	1.10070	.31560	.22770	-.06080	.33040	.20560	.00620	-.00400	.00190
3.924	4.244	1.10000	.32050	.22770	-.06460	.33530	.20520	-.05460	-.00220	-.00420
	GRADIENT		.00000	-.00030	-.00040	-.00002	-.00031	-.01480	.00059	-.00164

RUN NO. 241/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
7.901	-3.860	1.10310	.54240	.28160	-.05990	.57590	.20430	.05690	-.00600	.01160
7.905	.181	1.10070	.54680	.28160	-.10210	.58030	.20370	.00430	-.00330	.00450
7.904	4.239	1.10070	.54510	.28160	-.10190	.57860	.20410	-.05260	-.00200	-.00320
	GRADIENT		.00033	.00002	-.00025	.00033	-.00002	-.01399	.00049	-.00183

RUN NO. 242/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.506	-3.844	1.09910	.74340	.36320	-.11480	.80230	.20200	.06070	-.00570	.01470
11.808	.168	1.10030	.73680	.36010	-.11330	.79480	.20170	-.00170	-.00050	.00390
11.865	4.250	1.09910	.74140	.36200	-.11750	.80000	.20180	-.06150	-.00110	-.00300
	GRADIENT		-.00025	-.00015	-.00033	-.00028	-.00002	-.01510	.00096	-.00219

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB041) ( 12 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = 10.000 SPDRK = 85.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = 10.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = .900  
 SCALE = .0300

RUN NO. 243/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00		CY		CBL	
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.997	-3.840	.89960	.14740	-.01370	-.15830	.13670	.09900	-.01820	.00590
-3.991	.189	.89980	.14830	-.00800	-.16490	.13710	.01620	-.00900	.00290
-3.992	4.274	.90020	.14590	-.01010	-.16550	.13470	-.06200	-.00210	.00180
	GRADIENT	.00005	-.00090	.00044	-.00089	-.00025	-.01984	.00198	-.00050
RUN NO. 244/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00		CY <td colspan="2">CBL</td>		CBL	
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.052	-3.863	.89920	.13790	-.02970	.08050	.13780	.09460	-.01760	.00950
.055	.182	.89820	.13760	-.02330	.07330	.13750	.01640	-.00840	.00300
.070	4.253	.89820	.13520	-.02650	.07640	.13510	-.05900	-.00100	-.00170
	GRADIENT	-.00012	-.00052	.00039	-.00050	-.00033	-.01892	.00204	-.00138
RUN NO. 245/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00		CY <td colspan="2">CBL</td>		CBL	
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.947	-3.868	.89850	.15780	-.05750	.33130	.13540	.09270	-.01690	.00920
4.018	.184	.89850	.15700	-.05300	.32730	.13440	.01510	-.00750	.00280
4.018	4.245	.89790	.15660	-.05620	.33090	.13370	-.06230	.00050	-.00250
	GRADIENT	-.00007	-.00006	.00016	-.00005	-.00021	-.01911	.00214	-.00144
RUN NO. 246/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00		CY <td colspan="2">CBL</td>		CBL	
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.919	-3.861	.89940	.21140	-.07580	.55190	.13660	.08730	-.01480	.01110
7.925	.181	.89920	.21020	-.07520	.55440	.13500	.01170	-.00680	.00430
7.877	4.247	.89920	.20810	-.07770	.55320	.13350	-.06470	.00050	-.00170
	GRADIENT	-.00002	-.00041	-.00023	.00016	-.00038	-.01875	.00189	-.00158
RUN NO. 247/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00		CY <td colspan="2">CBL</td>		CBL	
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.633	-3.850	.89820	.28670	-.08290	.74630	.13580	.08020	-.01030	.01300
11.848	.191	.89920	.28360	-.08030	.74480	.13350	.00860	-.00640	.00360
11.881	4.259	.89850	.28580	-.08480	.74410	.13550	-.06150	-.00370	-.00400
	GRADIENT	.00004	-.00025	-.00024	-.00027	-.00004	-.01747	.00081	-.00210

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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(RE8042) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPOBRK = 85.000  
BDFLAP = 16.300 ELVN-L = 10.000  
ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

RUN NO. 249/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.049	-7.852	.59620	-.05240	.10910	-.04560	-.06000	.10520	.17070	-.02390	.00770
-3.971	-3.842	.59660	-.06270	.11610	-.03850	-.07060	.11150	.09260	-.01430	.00410
-3.888	.191	.59620	-.06710	.11960	-.03300	-.07510	.11470	.01630	-.00830	.00310
-3.983	4.273	.59620	-.07060	.11810	-.03470	-.07860	.11290	-.05870	-.00310	.00330
-3.999	8.343	.59590	-.05500	.10950	-.04290	-.06250	.10540	-.14060	.00680	.00030
	GRADIENT	-.00005	-.00097	.00025	.00022	-.00099	.00017	-.01864	.00138	-.00010

RUN NO. 249/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.003	-7.885	.59560	.12600	.11320	-.04570	.12600	.11320	.16330	-.02290	.01170
.104	-3.860	.59600	.12170	.11780	-.03990	.12190	.11760	.08820	-.01350	.00600
.114	.190	.59560	.11330	.12000	-.03510	.11350	.11980	.01580	-.00760	.00260
.111	4.251	.59620	.11750	.11890	-.03850	.11770	.11870	-.05760	-.00210	.00050
.040	8.310	.59720	.12850	.11190	-.04610	.12860	.11180	-.13960	.00820	-.00490
	GRADIENT	.00002	-.00052	.00014	.00017	-.00052	.00014	-.01798	.00141	-.00068

RUN NO. 250/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.041	-7.899	.59690	.31180	.12970	-.04680	.32020	.10740	.15810	-.02210	.01580
3.969	-3.860	.59650	.30980	.13110	-.04620	.31810	.10930	.08620	-.01300	.00760
4.049	.193	.59690	.30020	.13240	-.03970	.30880	.11080	.01420	-.00660	.00270
3.947	4.242	.59690	.30180	.13130	-.04450	.31020	.11020	-.05830	-.00100	.00160
3.965	8.292	.59650	.31380	.12670	-.05100	.32180	.10460	-.14180	.01010	-.00970
	GRADIENT	.00005	-.00099	.00002	.00021	-.00098	.00011	-.01784	.00148	-.00116

RUN NO. 251/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.905	-7.888	.59660	.50950	.15930	-.05670	.52640	.08680	.15400	-.02220	.01960
7.915	-3.855	.59660	.50880	.15960	-.05310	.52590	.08800	.08240	-.01240	.00930
8.038	.180	.59660	.49900	.16080	-.04800	.51660	.08950	.01110	-.00560	.00200
8.035	4.244	.59620	.50050	.15990	-.05230	.51800	.08840	-.06060	.00030	-.00350
8.035	8.296	.59620	.51480	.15750	-.05590	.53170	.08400	-.14320	.01170	-.01350
	GRADIENT	-.00005	-.00102	.00004	.00010	-.00097	.00005	-.01768	.00157	-.00158

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE8042) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

RUN NO. 252/ 0 RV/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.910	-7.853	.59660	.72000	.21140	-.06300	.74810	.05820	.14160	-.01970	.02540
11.930	-3.836	.59700	.71920	.21610	-.06020	.74840	.06270	.07350	-.00990	.01320
11.966	.177	.59620	.71450	.21640	-.05510	.74380	.06360	.00720	-.00330	.00270
11.976	4.252	.59620	.71260	.21710	-.06090	.74210	.06450	-.06150	.00200	-.00590
12.034	8.318	.59690	.72790	.21390	-.06620	.75650	.05740	-.14500	.01320	-.01740
	GRADIENT	-.00010	-.00082	.00012	-.00009	-.00078	.00022	-.01669	.00147	-.00236

AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE8043) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 253/ 0 RV/L = 3.67 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.070	-3.850	.89800	-.10520	.12780	-.05480	-.11400	.12000	.08400	-.00970	.00660
-4.069	.187	.89840	-.11900	.13020	-.04860	-.12800	.12140	-.00070	.00050	-.00240
-4.078	4.272	.89740	-.11800	.12780	-.05130	-.12680	.11910	-.08640	.01070	-.00470
	GRADIENT	-.00007	-.00157	-.00000	.00043	-.00157	-.00011	-.02098	.00251	-.00065

RUN NO. 254/ 0 RV/L = 3.65 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.029	-3.865	.89800	.11980	.12370	-.06960	.11970	.12380	.07810	-.00970	.00560
-.015	.186	.89550	.11500	.12220	-.06450	.11500	.12230	-.00180	.00040	-.00140
-.021	4.247	.89680	.11600	.12280	-.05780	.11600	.12280	-.08330	.01090	-.00820
	GRADIENT	-.00015	-.00047	-.00011	.00022	-.00046	-.00012	-.01990	.00254	-.00170

RUN NO. 255/ 0 RV/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.931	-3.870	.89740	.36370	.14610	-.09790	.37290	.12080	.07830	-.01000	.00550
3.931	.185	.89610	.35640	.14500	-.09270	.36550	.12030	-.00180	.00070	-.00150
3.933	4.242	.89680	.36520	.14680	-.09860	.37440	.12140	-.08450	.01150	-.00870
	GRADIENT	-.00007	.00019	.00009	-.00009	.00019	.00007	-.02007	.00265	-.00175

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8043) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPDERK = 55.000  
 BOFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

## PARAMETRIC DATA

RUN NO. 256/ 0 RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.998	-3.866	.89800	.57400	.20330	-.11800	.59670	.12140	.07390	-.00820	.00730
8.006	.180	.89490	.58160	.20380	-.11800	.60430	.12080	-.00500	.00120	.00060
8.004	4.244	.89550	.58170	.20360	-.12030	.60440	.12060	-.08680	.01110	-.00730
	GRADIENT	-.00031	.00095	.00004	-.00028	.00095	-.00010	-.01982	.00238	-.00180

RUN NO. 257/ 0 RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.977	-3.853	.86740	.74770	.28360	-.12580	.79030	.12250	.06630	-.00410	.01030
11.988	.182	.89550	.75040	.28250	-.12350	.79270	.12050	-.00500	.00060	.00040
11.978	4.261	.89970	.74360	.28390	-.12830	.78630	.12340	-.08280	.00630	-.00860
	GRADIENT	.00028	-.00051	.00001	-.00031	-.00049	.00011	-.01838	.00128	-.00233

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPDERK = 55.000  
 BOFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

RUN NO. 258/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.010	-7.850	.59520	-.01800	.09380	-.07540	-.02450	.09230	.15200	-.01570	.00410
-3.994	-3.842	.59550	-.02890	.09800	-.06990	-.03560	.09580	.07220	-.00560	-.00010
-3.985	.188	.59650	-.03490	.10100	-.06670	-.04180	.09830	-.00190	.00070	-.00200
-3.992	4.269	.59650	-.03030	.09820	-.07080	-.03700	.09580	-.07810	.00720	-.00360
-4.007	8.349	.59680	-.01780	.09320	-.07500	-.02430	.09170	-.16190	.01760	-.00650
	GRADIENT	.00012	-.00017	.00002	-.00011	-.00017	-.00000	-.01853	.00158	-.00043

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8044) ( 12 AUG 75 )

DATE 08 MAY 75

TABULATED FORCE DATA - 0A148 ( AXES 11-073-1 )  
 AXES 11-073(0A148) -140A/B/C/R ORBITER

(REB044) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SP088K = 55.000  
 B0FLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
0.39	-7.885	.59690	.16340	.09980	-.07740	.16350	.09970	.14640	-.01580	-.00860
0.52	-3.866	.59620	.15770	.10230	-.07300	.15780	.10210	.06930	-.00550	-.00220
0.53	.192	.59660	.14990	.10400	-.06890	.15000	.10390	-.00270	.00070	-.00210
0.49	4.248	.59630	.15560	.10280	-.07380	.15570	.10270	-.07750	.00760	-.00590
0.44	8.307	.59560	.16830	.09850	-.07890	.16830	.09830	-.16030	.01810	-.01150
GRADIENT	8.307	.00001	-.00026	.00006	-.00010	-.00026	.00007	-.01809	.00161	-.00100
RUN NO. 255/ 0 RV/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00										
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.960	-7.902	.59620	.34670	.11590	-.08270	.35390	.09170	.14620	-.01650	-.01310
3.964	-3.864	.59740	.34520	.11750	-.07940	.35250	.09330	.06900	-.00560	.00430
3.969	.189	.59690	.33650	.11810	-.07410	.34390	.09450	-.00280	.00100	-.00210
3.972	4.243	.59690	.34850	.11930	-.08170	.35590	.09490	-.07670	.00820	-.00800
3.982	8.290	.59730	.35720	.11590	-.08540	.36440	.09080	-.16090	.01910	-.01570
GRADIENT	8.290	-.00006	.00041	.00022	-.00028	.00042	.00020	-.01822	.00170	-.00152
RUN NO. 261/ 0 RV/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00										
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
8.025	-7.890	.59620	.55510	.14980	-.09370	.57060	.07090	.14290	-.01790	.01750
8.036	-3.859	.59590	.55310	.15040	-.08820	.56870	.07160	.06790	-.00500	.00590
8.040	.178	.59590	.54760	.15090	-.08340	.56340	.07290	-.00260	.00100	-.00220
8.039	4.241	.59660	.55340	.15130	-.08990	.56920	.07250	-.07820	.00860	-.00920
8.038	8.285	.59520	.56400	.14960	-.09480	.57940	.06930	-.16140	.02010	-.01930
GRADIENT	8.285	.00009	.00004	.00011	-.00021	.00006	.00011	-.01804	.00183	-.00186
RUN NO. 262/ 0 RV/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00										
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
12.021	-7.852	.59590	.76900	.20780	-.09960	.79540	.04310	.13420	-.01640	.02370
11.932	-3.840	.59640	.76000	.20920	-.09420	.78690	.04750	.06300	-.00470	.01060
11.546	.176	.59650	.76010	.21010	-.09060	.78710	.04820	-.00570	.00250	-.00040
11.941	4.247	.59620	.76530	.21110	-.09810	.79240	.04820	-.07900	.00980	.110
11.928	8.307	.59580	.76980	.20590	-.10160	.79580	.04230	-.16090	.02130	-.2300
GRADIENT	8.307	-.00002	.00066	.00023	-.00049	.00068	.00009	-.01756	.00179	-.00268

DATE 08 MAY 76

TABULATED FORCE DATA - 0A14R ( AMES 11-073-1 )

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( RE8045 ) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = .000 SPOBRK = 53.000  
 BOFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .900

## PARAMETRIC DATA

RUN NO. 263/ 0 RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.961	-3.852	.89800	-.17720	.12170	-.00960	-.18520	.10920	.08750	-.01070	-.00070
-3.932	.188	.89540	-.17830	.12370	-.00740	-.18640	.11120	-.00140	.00030	-.00300
-3.942	4.270	.89610	-.17650	.12130	-.01240	-.18440	.10890	-.08990	.01120	-.00480
	GRADIENT		.00009	-.00005	-.00035	.00010	-.00004	-.02184	.00270	-.00050

RUN NO. 264/ 0 RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.010	-3.868	.85700	.04450	.11160	-.02090	.04450	.11160	.08420	-.01090	-.00300
.025	.185	.85540	.04540	.11170	-.01890	.04540	.11160	-.00010	.00000	-.00290
.019	4.247	.85640	.04650	.11260	-.02320	.04650	.11260	-.08490	.01120	-.00840
	GRADIENT		.00025	.00012	-.00028	.00025	.00012	-.02084	.00272	-.00140

RUN NO. 265/ 0 RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.946	-3.873	.89800	.26610	.12910	-.03750	.27430	.11050	.08620	-.01170	-.00140
4.002	.184	.89870	.26400	.12850	-.03380	.27230	.10970	.00170	-.00030	-.00450
3.937	4.239	.89840	.27050	.12970	-.04020	.27880	.11080	-.08360	.01120	-.00950
	GRADIENT		.00054	.00007	-.00033	.00055	.00004	-.02093	.00282	-.00134

RUN NO. 266/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.970	-3.868	.65760	-.6320	.17470	-.05020	.48300	.10880	.07930	-.00930	-.00470
7.979	.177	.89870	.46710	.17470	-.04830	.48680	.10810	.00130	-.00000	-.00290
7.978	4.243	.89610	.47300	.17750	-.05310	.49310	.11010	-.08240	.00970	-.01040
	GRADIENT		.00121	.00035	-.00036	.00125	.00016	-.01994	.00234	-.00186

RUN NO. 267/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.530	-3.856	.85780	.65020	.25190	-.06490	.68830	.11180	.07960	-.00770	.30810
11.561	.178	.89590	.65260	.25050	-.06180	.69030	.10980	.00030	-.00100	-.00110
11.950	4.259	.89590	.64800	.25240	-.06670	.68620	.11270	-.08310	.00720	-.01040
	GRADIENT		-.00027	.00006	-.00022	-.00026	.00011	-.02035	.00184	-.00228

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C/R ORBITER

(RE046: ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

RUN NO. 268/ 0 RVN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-4.081	-7.851	.59680	-1.1000	.09020	-.02940	-.11610	.08210	.15370	-.01600	-.00210
-3.953	-3.833	.59590	-1.1300	.09390	-.02430	-.11920	-.0780	.07320	-.00500	-.00130
-3.951	.188	.59590	-1.1230	.09750	-.02100	-.12780	.08890	-.00130	-.00040	-.00260
-3.958	4.269	.59590	-1.1560	.09460	-.02510	-.12190	.08640	-.07780	.00700	-.00350
-3.973	8.335	.59510	-1.0320	.08950	-.02860	-.10920	.08210	-.16070	.01700	-.00640
	GRADIENT	.00000	-.00032	.00008	-.00010	-.00033	.00007	-.01864	.00160	-.00027

RUN NO. 269/ 0 RVN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
.060	-7.888	.59630	.07470	.09040	-.02990	.07470	.09030	.15100	-.01650	-.00670
.070	-3.865	.59350	.06880	.09240	-.02510	.06990	.09240	.07360	-.00640	-.00090
.070	.181	.59620	.06070	.09440	-.02150	.06080	.09430	.00060	-.00020	-.00270
.068	4.248	.59650	.06780	.08950	-.02650	.06790	.09330	-.07580	.00710	-.00620
.063	8.306	.59620	.07960	.08010	-.03120	.07960	.08900	-.15740	.01720	-.01130
	GRADIENT	.00000	-.00012	.00011	-.00017	-.00012	.00011	-.01842	.00166	-.00088

RUN NO. 270/ 0 RVN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
4.012	-7.901	.59680	.25650	.10170	-.03310	.26300	.08350	.14860	-.01680	-.01090
4.016	-3.862	.59720	.25650	.10300	-.02990	.26310	.08480	.07220	-.00620	-.00260
4.027	.191	.59720	.24660	.10270	-.02410	.26320	.08510	-.00040	.00040	-.00310
4.030	4.239	.59720	.25700	.10380	-.03090	.26370	.08550	-.07510	.00730	-.00850
4.035	8.288	.59580	.26750	.10050	-.03510	.27390	.08140	-.15670	.01800	-.01590
	GRADIENT	.00000	.00006	.00010	-.00012	.00007	.00009	-.01818	.00167	-.00137

RUN NO. 271/ 0 RVN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
7.956	-7.892	.59550	.45280	.12670	-.03980	.46600	.06240	.14390	-.01720	.01560
8.007	-3.861	.59680	.45140	.12790	-.03530	.46480	.06380	.06980	-.00590	.00480
8.012	.176	.59680	.44630	.12690	-.02950	.45960	.06350	.00060	.00060	-.00300
8.012	4.240	.59710	.45400	.12780	-.03550	.46740	.06320	-.07470	.00790	-.01040
8.009	8.293	.59630	.46120	.12520	-.03940	.47420	.05970	-.15660	.01820	-.02060
	GRADIENT	.00004	.00032	-.00001	-.00003	.00032	-.00007	-.01784	.00170	-.00188



DATE 08 MAY 76  
TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
AMES 11-073(0A148) -140A/B/C/R ORBITER

REFERENCE DATA  
SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = .000 SPOBRK = 55.000  
BDFLAP = 22.500 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = .600

RUN NO. 272/ 0 RV/L = 4.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.987	-7.852	.59580	.65560	.17710	-.04500	.68780	.03500	.13690	-.01620	.02150
12.008	-3.842	.59720	.66220	.17940	-.03950	.68510	.03770	.06470	-.01430	.00820
12.016	.174	.59680	.65660	.17860	-.03380	.67940	.03800	-.00140	.00190	-.00270
11.917	4.245	.59680	.65790	.17720	-.03980	.68030	.03750	-.07220	.00800	-.01280
11.904	8.309	.59700	.66460	.17330	-.04570	.68610	.03250	-.15250	.01900	-.02480
	GRADIENT	-.00005	-.00053	-.00027	-.00003	-.00059	-.00002	-.01693	.00152	-.00260

(RE8047) ( 12 AUG 75 )

REFERENCE DATA  
SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = -10.000 SPOBRK = 85.000  
BDFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = 1.400

RUN NO. 273/ 0 RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.987	-7.852	1.39850	.19080	.21760	.07850	-.20550	.20370	.07020	-.02160	-.00050
12.008	-3.842	1.40130	-.19490	.21950	.08210	-.20980	.20530	-.00770	.00270	-.00310
12.016	.174	1.39810	-.18820	.21670	.07580	-.20290	.20300	-.08940	.00890	-.00680
11.917	4.245	1.39810	.00032	-.00011	-.00033	.00032	-.00009	-.01954	.00129	-.00076
11.904	8.309	1.39810	.00052	.00010	-.00031	.00052	.00010	-.01777	.00105	-.00113
	GRADIENT	-.00005	.00052	.00010	-.00031	.00052	.00010	-.01777	.00105	-.00113

RUN NO. 274/ 0 RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.987	-7.852	1.40080	.00970	.20210	.03370	.00970	.20210	.06330	-.00050	.00050
12.008	-3.842	1.40080	.01110	.20340	.03510	.01110	.20340	-.00790	.00290	-.00310
12.016	.174	1.39810	.01390	.20290	.03120	.01390	.20290	-.08100	.00800	-.00830
11.917	4.245	1.39810	.00052	.00010	-.00031	.00052	.00010	-.01777	.00105	-.00113
11.904	8.309	1.39810	.00052	.00010	-.00031	.00052	.00010	-.01777	.00105	-.00113
	GRADIENT	-.00005	.00052	.00010	-.00031	.00052	.00010	-.01777	.00105	-.00113

RUN NO. 275/ 0 RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.987	-7.852	1.39510	.20570	.21080	-.00540	.21970	.19520	.05760	.00170	.00200
12.008	-3.842	1.39550	.20320	.21150	-.00370	.21720	.19700	-.00740	.00330	-.00370
12.016	.174	1.39550	.21280	.21330	-.00940	.22690	.19820	-.07420	.00630	-.01010
11.917	4.245	1.39550	.00087	.00031	-.00049	.00089	.00025	-.01623	.00057	-.00149
11.904	8.309	1.39550	.00087	.00031	-.00049	.00089	.00025	-.01623	.00057	-.00149
	GRADIENT	.00010	.00087	.00031	-.00049	.00089	.00025	-.01623	.00057	-.00149

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB047) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 276/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.863	-3.871	1.39360	.39280	.24560	-.03550	.42270	.18950	.05140	.00370	.00280
7.994	.174	1.39550	.39580	.24670	-.03690	.42630	.18930	-.00710	.00360	-.00340
7.994	4.239	1.39700	.40020	.24720	-.03940	.43070	.18920	-.06740	.00420	-.01050
	GRADIENT	.00042	.00091	.00020	-.00048	.00099	-.00004	-.01465	.00006	-.00164

RUN NO. 277/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.867	-3.858	1.39510	.57500	.30950	-.06380	.62640	.18470	.05740	.00240	.00180
11.873	.176	1.39550	.57670	.30950	-.06540	.62800	.18420	-.00790	.00340	-.00280
11.868	4.257	1.39590	.57210	.30940	-.06400	.62330	.18420	-.07640	.00580	-.00760
	GRADIENT	.00010	-.00036	-.00015	-.00002	-.00038	-.00006	-.01649	.00042	-.00116

RUN NO. 278/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
15.839	-3.834	1.39240	.74260	.39760	-.08300	.82290	.17980	.05400	.00630	.00440
15.851	.174	1.39360	.75030	.40040	-.08810	.83110	.18020	-.00820	.00360	-.00150
15.843	4.283	1.39700	.74110	.39790	-.08310	.82160	.18040	-.07160	.00140	-.00830
	GRADIENT	.00057	-.00019	.00003	-.00001	-.00017	.00007	-.01547	-.00060	-.00156

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB048) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 279/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.024	-3.849	1.24790	-.22290	.22000	.09940	-.23780	.20380	.06630	-.00190	-.00310
-4.006	.189	1.24760	-.22870	.22290	.10460	-.24370	.20540	-.01000	.00330	-.00340
-4.015	4.273	1.24700	-.22180	.22190	.09710	-.23680	.20560	-.09900	.00960	-.00750
	GRADIENT	-.00011	.00014	.00023	-.00029	.00013	.00025	-.01912	.00144	-.00091

## PARAMETRIC DATA

RUDDER = -10.000 SPCSRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.250

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE8048) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.250

RUN NO. 280/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.012	-3.869	1.24760	.00930	.20350	.04300	.00940	.20350	.06090	-.00380	.00110
.020	.189	1.24470	.00710	.20550	.04550	.00720	.20550	-.00840	.00300	-.00300
.014	4.249	1.24570	.00980	.20590	.04120	.00980	.20590	-.08060	.00850	-.00830
	GRADIENT	-.00023	.00006	.00030	-.00022	.00005	.00030	-.01743	.00115	-.00116

RUN NO. 281/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.961	-3.873	1.24660	.22740	.21750	-.00410	.24190	.20130	.05540	.00140	.00220
3.960	.185	1.24600	.22580	.21910	-.00420	.24040	.20300	-.00750	.00320	-.00330
3.964	4.240	1.24600	.23470	.22070	-.00870	.24940	.20390	-.07430	.00680	-.01000
	GRADIENT	-.00007	.00090	.00039	-.00057	.00092	.00032	-.01599	.00067	-.00150

RUN NO. 282/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.898	-3.868	1.24700	.43700	.25740	-.04230	.46820	.19490	.04960	.00310	.00280
8.001	.178	1.24570	.43500	.25840	-.04270	.46680	.19540	-.00780	.00330	-.00310
8.003	4.235	1.24600	.43910	.26000	-.04280	.47100	.19630	-.06870	.00520	-.01120
	GRADIENT	-.00012	.00026	.00032	-.00006	.00035	.00017	-.01460	.00026	-.00173

RUN NO. 283/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.933	-3.854	1.24510	.63460	.32730	-.06750	.68860	.18900	.04980	.00320	.00600
11.941	.176	1.24410	.63910	.32760	-.07050	.69300	.18830	-.01050	.00450	-.00140
11.936	4.253	1.24570	.63310	.32770	-.06760	.68720	.18970	-.07120	.00590	-.01170
	GRADIENT	.00007	-.00019	.00005	-.00001	-.00018	.00009	-.01493	.00033	-.00218



(REB050) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SO.FT.  
LREF = 474.8000 IN.  
BREF = 936.5800 IN.  
SCALE = .0300

XMRP	=	1075.6800	IN.	X0
YMRP	=	.0000	IN.	Y0
ZMRP	=	375.0000	IN.	Z0

## PARAMETRIC DATA

RUDDER =	-10.000	SPOBRK =	65.000
BOFLAP =	16.300	ELVN-L =	4.000
ELVN-R =	4.000	MACH =	.900

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.039	-3.850	.89930	-.22440	.13920	.03490	-.23360	.12300	.05790	.00220	-.00760
-4.026	.188	.89930	-.22890	.14340	.03720	-.23840	.12700	-.02480	.01030	-.00800
-4.037	4.267	.89990	-.22590	.14070	.02990	-.23430	.12450	.11200	.02060	-.00910
	GRADIENT	.00037	-.00007	.00018	-.00052	-.00008	.00018	-.02093	.00267	-.00018

ALPHA-	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.032	-3.867	.85890	.00290	.12430	.02200	.00300	.12400	.05860	.00090	-.00320
.035	.164	.85870	.00050	.12560	.02320	.00060	.12560	-.02200	.00940	-.00720
.028	4.248	.89800	.00430	.12560	.01690	.00440	.12560	-.10650	.02010	-.01190
	GRADIENT	-.00011	.00017	.00020	-.00063	.00017	.00020	.02035	.00237	-.00107

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.999	-3.868	.89990	.22050	.13660	.00760	.22950	.12090	.06070	-.00020	-.00350
4.003	.164	.90150	.21750	.13900	.00970	.22660	.12250	-.01920	.00840	-.00810
4.005	4.239	.90080	.22870	.13940	.00200	.23790	.12300	-.10350	.01920	-.01290
GRADIENT	.00011	.00011	.00101	.00335	-.00069	.00104	.00026	-.02025	.00239	-.00116

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
8.040	-3.870	.89990	.41990	.18170	-.00310	.44120	.12120	.05540	.00150	.00060
8.045	.178	.89870	.42210	.18150	-.00410	.44330	.12070	-.01970	.00790	-.00580
8.043	4.236	.90050	.42490	.18240	-.00900	.44630	.12120	-.09900	.01710	-.01340
	GRADIENT	.00062	.00062	.00009	-.00073	.00063	.00000	-.01905	.00192	-.00173

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CSL
1.530	-3.854	.89950	.60400	.25190	-.01740	.64310	.12100	.05600	.00250	.00380
1.989	.180	.89990	.60290	.25330	-.01470	.64230	.12250	-.01940	.00640	-.00380
1.979	4.260	.89990	.59990	.25210	-.01860	.63820	.12230	-.09910	.01340	-.01180
GRADIENT		-.00007	-.00063	.00002	-.00015	-.00060	.00016	-.01912	.00134	-.00192

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C/R ORBITER

(REB051) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

RUN NO. 294/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
-3.976	-7.854	.59500	-.14230	.10660	.00440	-.14940	.09650	.12790	-.00470
-3.959	-3.844	.59500	-.15320	.11310	.01210	-.16060	.10220	.04880	-.00810
-3.956	.188	.59500	-.15800	.11460	.01340	-.16560	.10340	-.02340	-.00750
-3.963	4.269	.59610	-.15070	.11190	.00820	-.15810	.10120	-.09950	-.00780
-3.980	8.339	.59600	-.13860	.10410	.00100	-.14550	.09420	-.17930	-.00990
	GRADIENT	.00014	.00031	-.00015	-.00048	.00031	-.00012	-.01828	.00004
RUN NO. 295/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
.060	-7.891	.59650	.03500	.10260	.00400	.03520	.10260	.12890	-.00610
.070	-3.863	.59650	.02830	.10720	.01040	.02840	.10720	.05010	-.00520
.075	.185	.59570	.02390	.10880	.01240	.02400	.10880	-.02090	-.00710
.070	4.248	.59550	.02760	.10740	.00750	.02770	.10730	-.09600	.01530
.066	8.300	.59580	.04220	.10090	.00090	.04230	.10080	-.17550	-.01450
	GRADIENT	.00000	-.00009	.00002	-.00036	-.00009	.00001	-.01801	-.00058
RUN NO. 296/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
4.023	-7.901	.59540	.21510	.11240	.00450	.22240	.09700	.12980	-.00500
4.027	-3.864	.59620	.21470	.11470	.00780	.22220	.09930	.05200	-.00280
4.029	.191	.59650	.20920	.11430	.00990	.21680	.09930	-.01890	-.00690
4.031	4.239	.59580	.21860	.11510	.00400	.22610	.09940	-.09330	-.01190
4.035	8.279	.59430	.22840	.11060	-.00060	.23560	.09420	-.17200	-.01830
	GRADIENT	-.00005	.00048	.00005	-.00047	.00048	.00001	-.01793	-.00112
RUN NO. 297/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
8.061	-7.886	.59540	.41460	.13630	.00170	.42960	.07680	.12670	-.01090
8.070	-3.859	.59620	.41370	.13680	.00310	.42880	.07740	.05050	-.00030
8.069	.180	.59540	.40600	.13590	.00530	.42110	.07760	-.01700	-.00660
8.069	4.237	.59580	.41110	.13630	.00130	.42620	.07720	-.08910	-.01370
8.063	8.284	.59580	.41790	.13260	-.00510	.43240	.07260	-.16640	-.02290
	GRADIENT	-.00005	-.00032	-.00006	-.00022	-.00032	-.00002	-.01724	-.00165

DATE 08 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 63

(RE8051) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

RUN NO. 298/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
12.002	-7.847	.59550	.61790	.18180	-.00480	.64220	.04930	.11760	-.00710	.01650
12.023	-3.840	.59660	.61510	.18330	.00000	.63980	.05110	.04660	.00410	.00360
12.027	.177	.59550	.60750	.18130	.00430	.63200	.05070	-.01870	.00770	-.00550
12.024	4.250	.59500	.61600	.18400	-.00240	.64080	.05170	-.08660	.01350	-.01600
12.010	8.307	.59490	.62480	.17740	-.01080	.64810	.04350	-.16250	.02250	-.02710
	GRADIENT	-.00020	.00012	.00009	-.00030	.00013	.00007	-.01646	.00116	-.00242

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8052) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.400

RUN NO. 299/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-4.050	-3.860	1.39620	-.19920	.19890	.06580	-.21280	.18430	.06600	.00260	-.01180
-4.043	.186	1.39740	-.20360	.20160	.07040	-.21740	.18670	-.01940	.00900	-.01610
-4.048	4.268	1.39540	-.20000	.20060	.06720	-.21360	.18600	-.09630	.01520	-.02010
	GRADIENT	-.00010	-.00010	.00021	.00017	-.00010	.00021	-.01957	.00155	-.00102

RUN NO. 300/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-.027	-3.878	1.39740	.00130	.18120	.02300	.00120	.18120	.06010	.00440	-.00980
-.013	.172	1.39700	-.00010	.18420	.02580	-.00010	.18420	-.01450	.00970	-.01500
-.015	4.247	1.39590	.00400	.18550	.02310	.00400	.18550	-.08820	.01470	-.01980
	GRADIENT	-.00006	.00033	.00033	.00001	.00035	.00053	-.01825	.00127	-.00123

RUN NO. 301/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
3.910	-3.836	1.39780	.19630	.18910	-.01440	.20870	.17530	.05480	.00650	-.03800
3.912	.174	1.39660	.19510	.18940	-.01210	.20750	.17560	-.01380	.01010	-.01450
3.916	4.236	1.39470	.20290	.19210	-.01620	.21550	.17780	-.08080	.01300	-.02110
	GRADIENT	-.00038	.00081	.00037	-.00022	.00084	.00031	-.01670	.00080	-.00161

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(RE8052) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 302/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
7.922	-3.876	1.39590	.38350	.22370	-.04280	.41060	.16870	.05030	.00840	-.00710
7.930	.159	1.39670	.38830	.22420	-.04210	.41550	.16840	-.01140	.00970	-.01390
7.931	4.235	1.39700	.39250	.22560	-.04390	.41990	.16930	-.07370	.01060	-.02060
	GRADIENT	.00014	.00111	.00023	-.00014	.00115	.00007	-.01529	.00027	-.00165

RUN NO. 303/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.858	-3.866	1.39350	.56580	.28470	-.06930	.61220	.16230	.05570	.00700	-.00800
11.867	.157	1.39550	.57010	.28560	-.06980	.61670	.16230	-.00810	.00850	-.01390
11.865	4.248	1.39630	.57000	.28650	-.06880	.61720	.16210	-.07680	.01090	-.01890
	GRADIENT	.00034	.00052	.00047	.00006	.00062	.00035	-.01645	.00048	-.00134

RUN NO. 304/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
15.826	-3.845	1.39470	.73740	.37320	-.08780	.81120	.15790	.05260	.01150	-.00630
15.841	.165	1.39240	.74480	.37690	-.09100	.81940	.15930	-.00940	.00900	-.01310
15.833	4.274	1.39700	.73730	.37650	-.08650	.81210	.16100	-.07420	.00730	-.01960
	GRADIENT	.00029	-.00002	.00040	.00015	.00010	.00038	-.01562	-.00052	-.00164

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 305/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-4.036	-3.860	1.24630	-.22020	.20530	.07930	-.23410	.18930	.06790	.00350	-.01350
-4.029	.182	1.24200	-.22690	.20950	.08720	-.24310	.19290	-.01330	.00850	-.01930
-4.033	4.271	1.24210	-.22820	.20950	.08710	-.24240	.19300	-.09130	.01180	-.02340
	GRADIENT	-.00052	-.00098	.00052	.00096	-.00102	.00045	-.01958	.00102	-.00122

AMES 11-07310A148) -140A/B/C/R ORBITER

(RE8053) ( 12 AUG 75 )



(RE8053) ( 12 AUG 75 )

## REFERENCE DATA

SREF	=	2690.0000	SO.FT.	XPRP	=	1076.6800	IN. X0
LREF	=	474.8000	IN.	YPRP	=	.0000	IN. Y0
BREF	=	936.6800	IN.	ZPRP	=	375.0000	IN. Z0
SCALE	=	.0300					

## PARAMETER DATA

RUDDER =	-10.000	SPDRBK =	55.000
BOFLAP =	16.300	ELVN-L =	-4.000
ELVN-R =	4.000	NACH =	1.250

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-.011	-3.681	1.24760	.00060	.18680	.02660	.00050	.18680	.06140	.00540	-.01120
.001	.178	1.24490	-.00140	.19230	.03230	-.00140	.19230	-.01480	.00970	-.01660
.000	4.247	1.24360	.00080	.19420	.03350	.00080	.19420	-.08690	.01210	-.02230
	GRADIENT	-.00049	.00002	.00055	.00060	.00004	.00066	-.01824	.00082	-.00137

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.94	-3.877	1.24720	.21290	.19630	-.00860	.22590	.18120	.05410	.00570	-.00970
3.945	.180	1.24700	.21120	.19780	-.00770	.22430	.18280	-.01420	.01010	-.01700
3.949	4.232	1.24590	.22650	.19880	-.01330	.23570	.18300	-.08100	.01380	-.02390
GRADIENT		-.00016	.00120	.00031	-.00055	.00121	.00022	-.01665	.00100	-.00175

ALPHA	BETA	RUN NO.	308/ 0	RM/L	GRADIENT INTERVAL =	-5.00/	5.00	CAU	CY	CYN	CBL
7.975	-3.876	1.24530	CLU	.41850	CDU	CLMU	CAU	.05230	.00630	.00960	
7.918	.169	1.24760		.23580		-.04010	.44720	.17540	.01100	.01670	
7.882	4.233	1.24650		.23600		-.04120	.44770	.17600	.00950	.02410	
GRADIENT				.23800		-.04400	.45430	.17740	.07460	.01200	
				.00027		-.00048	.00088	.00025	.01565	.00070	
				.00016						.00179	

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
1.916	-3.1857	1.24880	.61220	.30190	-.06300	.66130	.16900	.05410	.00640	-.00720
1.930	.181	1.24830	.62370	.30440	-.06730	.67320	.16890	-.01000	.00860	-.01680
1.925	4.245	1.24740	.61920	.30600	-.06590	.66910	.17150	-.07450	.01160	-.02510
GRADIENT	-.00017	-.00086	.00086	.00051	-.00036	.00096	.00031	-.01597	.00064	-.00221

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB054) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.100

RUN NO. 310/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.970	-3.853	1.10190	-28530	.26010	.10630	-.29840	.17990	.06750	-.00020	-.02080
-3.931	.182	1.10110	-.28560	.20110	.10520	-.29870	.18100	-.01320	.00870	-.02310
-3.991	4.263	1.10110	-.27730	.20210	.09950	-.29070	.18230	-.09240	.01620	-.02400
	GRADIENT	-.00010	.00099	.00025	-.00084	.00095	.00030	-.01970	.00202	-.00039

RUN NO. 311/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.009	-3.870	1.10110	-.02440	.17920	.05140	-.02440	.17920	.06090	.00110	-.01350
.092	.176	1.10190	-.02280	.17920	.05370	-.02250	.17920	-.01190	.00830	-.02200
.026	4.243	1.10110	-.01470	.18110	.04480	-.01460	.18110	-.08570	.01590	-.02940
	GRADIENT	-.00000	.00120	.00023	-.00081	.00121	.00023	-.01807	.00182	-.00196

RUN NO. 312/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.932	-3.873	1.10150	.21870	.19650	.00440	.23160	.18110	.05750	.00210	-.01260
3.933	.171	1.10110	.21940	.19660	.00370	.23240	.18110	-.01070	.00830	-.02120
3.943	4.232	1.10000	.23060	.19790	-.00310	.24370	.18160	-.07980	.01480	-.02990
	GRADIENT	-.00019	.00147	.00017	-.00093	.00149	.00006	-.01694	.00157	-.00201

RUN NO. 313/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.906	-3.871	1.10190	.43080	.24060	-.02550	.45980	.17900	.05870	.00090	-.01250
8.006	.170	1.10070	.43950	.24050	-.03100	.46870	.17690	-.00950	.00800	-.02060
8.008	4.224	1.10000	.44470	.24320	-.03330	.47430	.17890	-.07540	.01550	-.02770
	GRADIENT	-.00023	.00172	.00032	-.00096	.00179	-.00001	-.01706	.00180	-.00188

RUN NO. 314/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.522	-3.854	1.10150	.62770	.30940	-.04330	.67800	.17300	.05110	.00450	-.00790
11.941	.179	1.10000	.63460	.30900	-.04650	.68480	.17100	-.01740	.01110	-.01830
12.006	4.239	1.10000	.63760	.31270	-.04780	.68870	.17320	-.08540	.01730	-.02820
	GRADIENT	-.00019	.00122	.00041	-.00056	.00132	.00003	-.01686	.00159	-.00251

DATE 08 MAY 76

TABULATED FORCE DATA - 0A1+8 ( AVES 11-073-1 )

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(REB055) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .900

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.966	-3.861	.90110	-.26600	.12480	.05030	-.27400	.10600	.07480	-.00070	-.02420
-3.902	.179	.90030	-.25980	.12690	.05270	-.26780	.10880	-.01420	.01050	-.02560
-3.962	.262	.90050	-.24990	.12360	.04440	-.25790	.10610	-.10220	.02060	-.02550
	GRADIENT	-.00007	.00198	-.00015	-.00073	.00198	.00001	-.02179	.00262	-.00016

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.074	-3.874	.85890	-.02930	.10860	.03290	-.02910	.10860	.07430	-.00200	-.01800
.080	.167	.89870	-.02820	.10860	.03520	-.02810	.10860	-.01080	.00900	-.02340
.067	.244	.89990	-.01710	.10850	.02850	-.01690	.10850	-.09850	.02010	-.02700
	GRADIENT	.00000	.00150	-.00001	-.00054	.00150	-.00001	-.02129	.00272	-.00111

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.946	-3.879	.89990	.19020	.12040	.01400	.19810	.10700	.07630	-.00270	-.01620
3.951	.176	.89990	.19080	.12100	.01740	.19870	.10750	-.00840	.00830	-.02190
3.956	.235	.89930	.20370	.12020	.01130	.21150	.10580	-.09440	.01930	-.02750
	GRADIENT	-.00007	.00166	-.00002	-.00033	.00165	-.00015	-.02104	.00271	-.00139

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.893	-3.876	.89930	.38980	.15980	.00210	.40800	.10470	.06920	-.00080	-.01300
8.030	.173	.89890	.39440	.16070	.00500	.41290	.10400	-.00970	.00810	-.02050
8.015	.230	.89870	.40110	.16170	.00100	.41970	.10420	-.08970	.01660	-.02800
	GRADIENT	.00005	.00139	.00023	-.00014	.00144	-.00006	-.01960	.00215	-.00165

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.573	-3.861	.89930	.57050	.22780	-.00710	.60530	.10450	.05980	.00040	-.01010
11.987	.182	.89930	.57410	.22850	-.00280	.60910	.10430	-.00960	.00590	-.01940
12.005	.250	.89870	.56660	.22560	-.00690	.60120	.10280	-.09000	.01370	-.02960
	GRADIENT	-.00007	-.00048	-.00027	.00002	-.00051	-.00021	-.01970	.00164	-.00240

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB056) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 50.FT.  
LREF = .474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP	=	1076.6900	IN.	X0
YMRP	=	.0000	IN.	Y0
ZMRP	=	375.0000	IN.	Z0

RUDDER =	-10.000	SPOBRK =	55.000
BOFLAP =	16.300	ELVN-L =	-4.000
ELVN-R =	4.000	NACH =	.600

## PARAMETRIC DATA

RUN NO.	320/ 0	RN/L =	4.88	GRADIENT INTERVAL =	-5.00/ 5.00
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ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.044	-7.856	.59690	-19130	.08980	.01560	-.19720	.07610	.13790	-.00380	-.02140
-3.971	-3.856	.59700	-.19950	.09630	.02410	-.20560	.08230	.05750	.00590	-.02450
-3.944	.179	.59700	-.20150	.09930	.02620	-.20780	.08520	-.01730	.01170	-.02480
-3.952	4.259	.59620	-.19450	.09710	.02180	-.20070	.08350	-.09220	.01800	-.02510
-3.967	8.330	.59650	-.18170	.09250	.01760	-.18770	.07970	-.16950	.02540	-.02610
	GRADIENT	-.00010	.00062	.00010	-.00028	-.00061	.00015	-.01845	.00149	-.00007

RUN NO. 321/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.082	-7.901	.59600	-.00450	.08380	.01310	-.00440	.08380	.14130	-.00610	-.01500
.093	-3.873	.59780	-.01250	.08690	.02150	.01230	.08890	.06120	.00430	-.02110
.095	.59780	.01760	.09140	.02500	.01740	-.01400	.09140	-.01340	.01050	-.02400
.092	4.242	.59590	-.01080	.08930	.01940	.01060	.08980	-.08820	.01700	.02690
.089	8.298	.59690	.00360	.08530	.01450	.00370	.08530	.16460	.02470	-.03030
	GRADIENT	.00001	.00021	.00011	-.00026	.00011	.00011	-.01841	.00157	-.00071

RUN NO. 322/ 0 RM/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.036	-7.914	.59700	.17330	.09040	.01340	.17820	.07800	.14310	-.00780	-.01120
4.041	-3.873	.59700	.17210	.09460	.01930	.17840	.08230	.06390	.00310	-.01950
4.096	.178	.59660	.16830	.09470	.02350	.17460	.08240	-.00820	.00900	-.02470
3.977	4.232	.59590	.17410	.09410	.01670	.18020	.08180	-.08220	.01560	-.02950
4.011	8.279	.59730	.16500	.09080	.01330	.19090	.07770	-.15850	.02390	-.03510
	GRADIENT	-.00001	.00025	-.00006	-.00032	.00022	-.00006	-.01803	.00154	-.00122

RUN NO. 323/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
8.004	-7.903	.59550	.36330	.10920	.00870	.37490	.05760	.14250	-.00910	-.00590
8.017	-3.872	.59700	.36270	.11340	.01520	.37500	.06170	.06460	.00240	-.01730
7.931	.166	.59890	.35910	.11220	.01970	.37110	.06130	-.00420	.00630	-.02470
7.931	4.229	.59700	.36800	.11090	.01300	.37980	.05910	-.07740	.01500	-.03160
7.987	8.286	.59550	.37630	.11050	.01110	.38800	.05710	-.15430	.02340	-.04030
GRADIENT	.00000	.00066	-.00031	-.00027	-.00032	.00059	-.00032	-.01753	.00156	-.00177

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
AMES 11-073(0A148) -140A/B/C/R ORBITER

DATE 08 MAY 76

(RE8055) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XPRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YPRP = .0000 IN. YO  
BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO  
SCALE = .0300

RUN NO. 324/ 0 RN/L = 4.89

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.920	-7.857	.59690	.57170	.15150	.00110	.59070	.03010	.13680	-.00810	-.00030
11.942	-3.850	.55560	.56730	.15490	.01120	.58710	.03420	.06040	.00370	-.01380
12.055	.165	.59660	.56250	.15480	.01770	.58240	.03390	-.00620	.00690	-.02400
12.053	4.239	.59550	.57430	.15540	.00890	.59418	.03210	-.07430	.01470	-.03480
12.101	8.299	.59690	.59930	.15600	.00340	.58870	.02900	-.15010	.02300	-.04450
	GRADIENT	-.00001	.00087	.00006	-.00029	.00087	-.00026	-.01665	.00136	-.00260

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
BOFLAP = 16.300 ELVN-L = -4.000  
ELVN-R = 4.000 MACH = .600

(RE8057) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

REFERENCE DATA

SREF = 2690.0000 SO.FT. XPRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YPRP = .0000 IN. YO  
BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO  
SCALE = .0300

RUN NO. 325/ 0 RN/L = 2.91

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.026	-3.843	1.39320	-.20240	.19920	.06710	-.21590	.18450	.08480	-.01410	.01560
-3.938	.202	1.39330	-.20440	.20070	.06980	-.21770	.18620	.00640	-.00840	.01130
-4.001	4.282	1.39170	-.20230	.19830	.06560	-.21560	.18370	-.07390	-.00160	.00720
	GRADIENT	-.00018	.00001	-.00011	-.00019	.00004	-.00010	-.01953	.00154	-.00103

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.000  
BOFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = -4.000 MACH = 1.400

RUN NO. 326/ 0 RN/L = 2.91

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.015	-3.863	1.39360	.00100	.18320	.02330	.00110	.18320	.08050	-.01350	.01620
.021	.195	1.39400	-.00230	.18340	.02570	-.00220	.18340	.00830	-.00870	.01100
.016	4.262	1.39170	-.00120	.18150	.02290	-.00110	.18150	-.06430	-.00330	.00580
	GRADIENT	-.00023	-.00027	-.00021	-.00005	-.00027	-.00021	-.01782	.00126	-.00128

RUN NO. 327/ 0 RN/L = 2.91

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.900	-3.867	1.39140	.19440	.19020	-.01390	.20690	.17660	.07550	-.01180	.01700
4.005	.197	1.39360	.19260	.18900	-.01110	.20530	.17510	.00920	-.00880	.01040
3.907	4.252	1.39290	.19330	.18930	-.01450	.20570	.17570	-.05550	-.00550	.00410
	GRADIENT	.00018	-.00014	-.00011	-.00007	-.00015	-.00011	-.01626	.00078	-.00159

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8057) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 328/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
7.945	-3.862	1.39210	.38570	.22460	-.04360	.41300	.16920	.06900	-.00980	.01710
7.917	.187	1.39400	.38340	.22420	-.04170	.41070	.16920	.01040	-.00890	.01120
7.848	4.251	1.39320	.38220	.22340	-.04340	.40910	.16910	-.04950	-.00780	.00390
	GRADIENT	.00014	-.00043	-.00015	.00002	-.00048	-.00001	-.01461	.00025	-.00163

RUN NO. 329/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.907	-3.847	1.39250	.56010	.28760	-.06520	.60740	.16580	.07440	-.01070	.01760
11.890	.186	1.39590	.56340	.28690	-.06750	.61050	.16470	.00780	-.00810	.01210
11.884	4.265	1.39510	.56030	.28510	-.06800	.60700	.16360	-.06120	-.00490	.00650
	GRADIENT	.00027	.00002	-.00031	-.00034	-.00005	-.00027	-.01672	.00072	-.00137

RUN NO. 330/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
15.871	-3.822	1.39670	.73050	.37480	-.08270	.80510	.16070	.06880	-.00600	.01970
15.883	.187	1.39590	.73800	.37780	-.08860	.81320	.16140	.00720	-.00790	.01280
15.915	4.292	1.39670	.73250	.37590	-.08730	.80750	.16060	-.05570	-.00980	.00560
	GRADIENT	.00000	.00024	.00013	-.00056	.00029	-.00001	-.01534	-.00047	-.00174

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 331/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-4.015	-3.834	1.24680	-.23790	.20270	.09040	-.25150	.18560	.08350	-.01500	.01780
-4.012	.202	1.24830	-.24860	.20330	.09620	-.26220	.18540	.00540	-.00810	.01310
-4.007	4.280	1.24720	-.24220	.20240	.09100	-.25560	.18500	-.07320	-.00080	.00930
	GRADIENT	.00005	-.00053	-.00004	.00007	-.00053	-.00007	-.01931	.00175	-.00117

(RE8058) ( 12 AUG 75 )

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( REB058 ) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 99.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.250

RUN NO. 332/ 0 RV/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.035	-3.658	1.24820	-.00710	.18570	.03660	-.00700	.18570	.08020	-.01550	-.01810
.040	.189	1.24600	-.00790	.18540	.03850	-.00770	.18540	.00830	-.00860	-.01220
.037	4.261	1.24680	-.00650	.18580	.03520	-.00640	.18580	-.06410	-.00280	-.00650
GRADIENT	GRADIENT	-.00017	.00007	.00001	-.00017	.00007	.00001	-.01777	.00144	-.00143

RUN NO. 333/ 0 RV/L = 3.01 GRADIENT INTERVAL = -5.01/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.928	-3.661	1.24720	.20890	.19610	-.00860	.22180	.18140	.07480	-.01300	-.01900
3.929	.192	1.24700	.20590	.19780	-.00710	.21690	.18320	.00900	-.00900	-.01190
3.933	4.251	1.24590	.20970	.19750	-.00960	.22270	.18260	-.05690	-.00480	-.00540
GRADIENT	GRADIENT	-.00016	.00010	.00017	-.00012	.00011	.00015	-.01624	.00101	-.00168

RUN NO. 334/ 0 RV/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.966	-3.675	1.24590	.41760	.23690	-.04120	.44640	.17680	.06870	-.01170	-.02150
7.970	.187	1.24630	.41710	.23680	-.04090	.44590	.17670	.00970	-.00900	-.01350
7.694	4.250	1.24660	.41280	.23620	-.04040	.44130	.17730	-.05310	-.00580	-.00570
GRADIENT	GRADIENT	.00009	-.00059	-.00009	.00010	-.00063	.00006	-.01503	.00073	-.03195

RUN NO. 335/ 0 RV/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.923	-3.838	1.24490	.61310	.30430	-.05320	.66270	.17110	.06530	-.01030	-.02450
11.931	.197	1.24650	.61600	.30430	-.05440	.66570	.17040	.00210	-.00670	-.01610
11.925	4.259	1.24470	.60660	.30270	-.06060	.65610	.17090	-.05890	-.00450	-.00660
GRADIENT	GRADIENT	-.00003	-.00080	-.00020	.00032	-.00082	-.00002	-.01546	.00072	-.00221





REFERENCE DATA

SREF = 2690.0000 SQ.FT.

LREF = 474.8000 IN.

BREF = 936.6800 IN.

SCALE = .0300

XMRP = 1075.6800 IN. XO

YMRP = .0000 IN. YO

ZMRP = 375.0000 IN. ZO

RUDDER = 10.000

BDFLAP = 16.300

ELVN-R = -4.000

SPOBRK = 55.000

ELVN-L = 4.000

MACH = .900

PARAMETRIC DATA											
GRADIENT INTERVAL = -5.00/ 5.00											
RUN NO.	341/ 0	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL		
MACH	.89970	.25550	.12430	.04470	-.26360	.10600	.09330	-.02040	.01730		
BETA	-3.841	-.27230	.12810	.05160	-.28060	.10860	.00510	-.00970	.01710		
GRADIENT	4.265	-.26940	.12260	.04640	-.27720	.10360	-.08360	.00100	.01640		
	-.80028	-.00171	-.00021	.00021	-.00167	-.00030	-.02177	.00263	-.00011		
GRADIENT INTERVAL = -5.00/ 5.00											
RUN NO.	342/ 0	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL		
MACH	.89800	-.02380	.10910	.02990	-.02370	.10920	.08970	-.01970	.01960		
BETA	-3.856	-.03350	.10510	.03440	-.03340	.10910	.00460	-.00880	.01560		
GRADIENT	4.260	-.03450	.10740	.02980	-.03440	.10740	-.08040	.00240	.01100		
	-.00004	-.00132	-.00021	-.00001	-.00132	-.00022	-.02096	.00272	-.00106		
GRADIENT INTERVAL = -5.00/ 5.00											
RUN NO.	343/ 0	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL		
MACH	.89700	.18650	.11910	.01890	.19430	.10590	.06970	-.01910	.01900		
BETA	-3.861	.18330	.12010	.02090	.19130	.10690	.00700	-.00860	.01280		
GRADIENT	4.193	.18550	.11740	.01450	.19310	.10430	-.07730	.00280	.00830		
	-.00000	-.00012	-.00021	-.00054	-.00015	-.00020	-.02058	.00270	-.00132		
GRADIENT INTERVAL = -5.00/ 5.00											
RUN NO.	344/ 0	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL		
MACH	.89990	.38630	.15900	.00630	.40470	.10360	.08240	-.01630	.02170		
BETA	-3.857	.39040	.16050	.00730	.40900	.10440	.00630	-.00760	.01400		
GRADIENT	4.194	.38980	.15990	.00310	.40830	.10390	-.07190	.00140	.00620		
	.00005	.00043	.00011	-.00039	.00044	.00004	-.01904	.00218	-.00191		
GRADIENT INTERVAL = -5.00/ 5.00											
RUN NO.	345/ 0	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL		
MACH	.89930	.56040	.22360	-.00130	.59450	.10310	.08090	-.01440	.02680		
BETA	-3.839	.55840	.22190	.00380	.58220	.10170	.00220	-.00770	.01710		
GRADIENT	4.180	.55090	.22360	-.00370	.58520	.10500	-.07570	-.00060	.00710		
	.00005	-.00117	.00000	-.00030	-.00115	.00024	-.01932	.00170	-.00243		



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB061) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = .500

RUN NO. 350/ 0 RV/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.943	-7.853	.59620	.57090	.15110	.00820	.58980	.02970	.13330	-.02120	.04010
11.962	-3.827	.59700	.56510	.15180	.01440	.58430	.03140	.06330	-.01190	.02860
11.967	.197	.59660	.56640	.15160	.01950	.57570	.03300	-.00080	-.00590	.01710
11.963	4.259	.59530	.56660	.15320	.01070	.56600	.03240	-.06420	-.00080	.00620
11.951	8.316	.59730	.57680	.15080	.00070	.59560	.02810	-.14460	.01070	-.00620
	GRADIENT	-.00014	.00019	.00017	-.00046	.00021	.00012	-.01577	.00137	-.00277

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB062) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = 1.400

RUN NO. 351/ 0 RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.059	-3.849	1.39360	-.23110	.20260	.08680	-.24490	.18570	.08910	-.01220	.00560
-3.922	.195	1.39250	-.23060	.20380	.09030	-.24400	.18750	.00830	-.00570	.00090
-3.930	4.280	1.39130	-.22670	.20210	.08660	-.24000	.18600	-.07420	.00130	-.00340
	GRADIENT	-.00028	.00054	-.00006	-.00073	.00060	.00004	-.01997	.00166	-.00111

RUN NO. 352/ 0 RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.024	-3.867	1.39210	-.02360	.18300	.04100	-.02350	.18300	.08.90	-.01080	.00680
.029	.185	1.39290	-.02510	.18420	.04440	-.02510	.18420	.00850	-.00530	.00120
.025	4.257	1.39170	-.02330	.18340	.04130	-.02320	.18340	-.06690	.00050	-.00400
	GRADIENT	-.00005	.00004	.00005	.00004	.00004	.00005	-.01832	.00139	-.00133

RUN NO. 353/ 0 RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.958	-3.867	1.39090	.17200	.18820	.00400	.18450	.17590	.07550	-.00860	.00810
3.958	.187	1.39360	.16740	.18840	.00580	.18000	.17630	.00910	-.00500	.00140
3.963	4.246	1.39130	.17630	.18840	.00310	.18890	.17570	-.05920	-.00130	-.00530
	GRADIENT	.00005	.00053	.00002	-.00011	.00054	-.00002	-.01660	.00090	-.00165

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C,R ORBITER

( REF 8062 ) ( 12 AUG 75 )

### PARAMETRIC DATA

RUDDER	=	5.000	SPURRK	=	55.000
BOFLAP	=	16.300	ELVN-L	=	-4.000
ELVN-R	=	-4.000	NACH	=	1.400

## REFERENCE DATA

SREF	=	2690.0000	50.FT.
LREF	=	474.8000	IN.
BREF	=	936.6800	IN.
SCALE	=	.0300	
XMRP	=	1076.6800	IN. 20
YMRP	=	.0000	IN. 20
ZMRP	=	375.0000	IN. 20

RUN NO.	354/ 0	RM/L =	2.92	GRADIENT INTERV

	BETA	HACH	CLU	COU	LLN
ALPHA	7.927	1.39090	.35920	.22040	.16880
1	0.00000	0.00000	0.00000	0.00000	0.00000
2	0.00000	0.00000	0.00000	0.00000	0.00000
3	0.00000	0.00000	0.00000	0.00000	0.00000
4	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.00000	0.00000	0.00000	0.00000	0.00000
6	0.00000	0.00000	0.00000	0.00000	0.00000
7	0.00000	0.00000	0.00000	0.00000	0.00000
8	0.00000	0.00000	0.00000	0.00000	0.00000
9	0.00000	0.00000	0.00000	0.00000	0.00000
10	0.00000	0.00000	0.00000	0.00000	0.00000
11	0.00000	0.00000	0.00000	0.00000	0.00000
12	0.00000	0.00000	0.00000	0.00000	0.00000
13	0.00000	0.00000	0.00000	0.00000	0.00000
14	0.00000	0.00000	0.00000	0.00000	0.00000
15	0.00000	0.00000	0.00000	0.00000	0.00000
16	0.00000	0.00000	0.00000	0.00000	0.00000
17	0.00000	0.00000	0.00000	0.00000	0.00000
18	0.00000	0.00000	0.00000	0.00000	0.00000
19	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00000	0.00000	0.00000	0.00000
21	0.00000	0.00000	0.00000	0.00000	0.00000
22	0.00000	0.00000	0.00000	0.00000	0.00000
23	0.00000	0.00000	0.00000	0.00000	0.00000
24	0.00000	0.00000	0.00000	0.00000	0.00000
25	0.00000	0.00000	0.00000	0.00000	0.00000
26	0.00000	0.00000	0.00000	0.00000	0.00000
27	0.00000	0.00000	0.00000	0.00000	0.00000
28	0.00000	0.00000	0.00000	0.00000	0.00000
29	0.00000	0.00000	0.00000	0.00000	0.00000
30	0.00000	0.00000	0.00000	0.00000	0.00000
31	0.00000	0.00000	0.00000	0.00000	0.00000
32	0.00000	0.00000	0.00000	0.00000	0.00000
33	0.00000	0.00000	0.00000	0.00000	0.00000
34	0.00000	0.00000	0.00000	0.00000	0.00000
35	0.00000	0.00000	0.00000	0.00000	0.00000
36	0.00000	0.00000	0.00000	0.00000	0.00000
37	0.00000	0.00000	0.00000	0.00000	0.00000
38	0.00000	0.00000	0.00000	0.00000	0.00000
39	0.00000	0.00000	0.00000	0.00000	0.00000
40	0.00000	0.00000	0.00000	0.00000	0.00000
41	0.00000	0.00000	0.00000	0.00000	0.00000
42	0.00000	0.00000	0.00000	0.00000	0.00000
43	0.00000	0.00000	0.00000	0.00000	0.00000
44	0.00000	0.00000	0.00000	0.00000	0.00000
45	0.00000	0.00000	0.00000	0.00000	0.00000
46	0.00000	0.00000	0.00000	0.00000	0.00000
47	0.00000	0.00000	0.00000	0.00000	0.00000
48	0.00000	0.00000	0.00000	0.00000	0.00000
49	0.00000	0.00000	0.00000	0.00000	0.00000
50	0.00000	0.00000	0.00000		

82000.	.00074	.00028	100000
			INTERVAL = -5.00/ 5.00

[illegible][illegible]

	RUN NO.	356/ 0	RV/L =	2.92	GRADIENT INTERVAL =	-5.007	CY	CYN	CBL
BETA	MACH	CLU	CDU	CLMU	CNU	CAU	.07110	-.00240	-.00920
	1.38830	.71610	.36650	-.06650	.78910	.15620	.01060	-.00200	
ALPHA	5.912	.36870	.72130	-.07080	.79480	.15670	.00630	-.00470	
	1.38870	.36770	.78990	-.06940	.78990	.15710	-.05510	-.00470	
5.924		.71550	.36770		.78990	.00011	-.01925	-.00048	

REF 9063 ( 12 AUG 75 )

### PARAMETRIC DATA

RUDDER =	5.000	SPOBRK =	55.000
BOFLAP =	16.300	ELVN-L =	-4.000
		WACH =	1.250

## REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XPRP	=	1076.6800	IN.	XU
LREF	=	474.8000	IN.	YPRP	=	.0000	IN.	YU
BREF	=	936.6800	IN.	ZPRP	=	375.0000	IN.	ZU
SCALE	=	.0300						

CONFIDENCE INTERVAL = -5.00/ 5.00

BETA	ALPHA	GRADIENT	MACH	CLU	CDU	CLVU	CNU	CAU	CY	CYN	CBL
-3.8+0	-4.050	-3.916	1.24500	-.27970	-.20720	.11870	-.29350	.18700	.08880	-.01400	.00520
.196	-3.916	4.275	1.24500	-.27910	.20790	.12280	-.29270	.18830	-.00900	-.00600	.00010
4.275	-3.916	4.275	1.24570	-.27260	.20650	.1770	-.28610	.18740	-.07280	-.00150	.00450
-3.923	-3.923	-3.923	-.00004	.00088	-.00009	.3013	.00093	.00005	-.01991	.00191	-.00120

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RES083) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = 5.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 358/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.044	-3.864	1.24530	-.03870	.18680	.06030	-.03860	.18680	.08350	-.01260	.00760
.050	.180	1.24380	-.04030	.18780	.06320	-.04010	.18780	.00930	-.00590	.00100
.046	4.256	1.24630	-.03650	.18780	.05980	-.03640	.18780	-.06630	.00070	-.00530
	GRADIENT	.00012	.00027	.00012	-.00006	.00027	.00012	-.01845	.00164	-.00159

RUN NO. 359/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.990	-3.864	1.24530	.18160	.19520	.01420	.19480	.18210	.07730	-.01070	.00890
3.991	.185	1.24430	.17880	.19550	.01590	.19200	.18360	.00980	-.00550	.00130
3.994	4.245	1.24490	.18620	.19670	.01243	.19940	.18320	-.05920	-.00070	-.00590
	GRADIENT	-.00005	.00057	.00018	-.00022	.00057	.00014	-.01683	.00123	-.00182

RUN NO. 360/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.968	-3.863	1.24400	.38160	.23100	-.01460	.41000	.17590	.07480	-.00990	.00930
7.973	.179	1.24680	.38510	.23170	-.01640	.41360	.17600	.01190	-.00560	.00140
7.997	4.244	1.24630	.38710	.23260	-.01850	.41540	.17720	-.05560	-.00160	-.00370
	GRADIENT	.00028	.00068	.00020	-.00048	.00067	.00016	-.01609	.00102	-.00185

RUN NO. 361/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.969	-3.850	1.24430	.57890	.29460	-.03760	.62740	.16810	.07300	-.00840	.01190
11.877	.185	1.24430	.58350	.29470	-.03970	.63160	.16830	.00840	-.00440	.00330
11.890	4.256	1.24820	.57950	.29470	-.04020	.62780	.16900	-.05820	-.00120	-.00610
	GRADIENT	.00048	.00007	.00001	-.00032	.00005	.00011	-.01619	.00089	-.00222

AMES 11-07310A148) -140A/B/C/R ORBITER

(RE8064) ( 12 AUG 73 )

## REFERENCE DATA

SREF	=	2650.0000	SQ.FT.	XMRP	=	1076.6800	IN. X0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN. Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
SCALE	=	.0300					

## PARAMETRIC DATA

RUDDER =	5.000	SPDRK =	55.000
BOFLAP =	16.300	ELVN-L =	-4.000
ELVN-R =	-4.000	MACH =	1.100

RUN NO. 362/ 0 RAN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.951	-3.840	1.09880	-.32830	.20670	.13740	-.34180	.18360	.09520	-.01700	.00110
3.948	.196	1.09760	-.33260	.20560	.13690	-.34600	.18220	.01060	-.00690	-.00080
3.942	4.273	1.09810	-.32890	.20460	.13660	-.34220	.18150	.07280	.00240	-.00010
GRADIENT		-.00010	-.00007	-.00026	-.00035	-.00005	-.00026	-.02071	.00239	-.00027

RUN NO. 363/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.059	-3.863	1.10040	-.06880	.18200	.08230	-.08860	.18200	.08580	-.01570	.00900
.062	.183	1.05840	-.07480	.18100	.08640	-.07460	.18100	.01160	-.00700	.00020
.059	4.253	1.10070	-.06460	.18100	.07900	-.06440	.18110	-.06350	.00120	-.00740
	GRADIENT	.00004	.00052	-.00012	-.00041	.00052	-.00011	-.01837	.00208	-.00202

RUN NO.	364/ 0	RN/L =	3.19	GRADIENT INTERVAL =	-5.00/ 5.00
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ALPHA	BETA	MACH	CLU	COU	CLMU	CNU	CAU	CY	CYN	CBL
4.021	-3.865	1.10030	.17780	.19600	.03480	.19110	.18300	.06520	-.01550	.00930
4.021	.178	1.10030	.17730	.19540	.03410	.19050	.18250	.01340	-.00700	.00050
4.024	4.243	1.09790	.18330	.19590	.03090	.19660	.18250	-.06240	.00190	-.00700
GRADIENT		-.00030	.00068	-.00001	-.00048	.00068	-.00006	-.01821	.00215	-.00201

RUN NO. 365/ 0    RN/L = 3.20    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.977	-3.859	1.10110	.36840	.23630	.00580	.41740	.18010	.08240	-.01560	.01030
7.981	.181	1.09870	.39400	.23580	.00120	.42290	.17880	.01290	-.00670	.00170
7.900	4.237	1.09870	.39160	.23650	.00190	.42040	.18040	-.06320	.00320	-.00630
GRADIENT		-.00030	.00039	.00002	-.00048	.00037	.00004	-.01798	.00232	-.00205

RUN NO. 355/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
1.519	-3.644	1.09870	.59420	.30030	-.01160	.63360	.17310	.07540	-.01270	.01410
1.930	.169	1.09830	.59060	.29880	-.01310	.63960	.17030	.00650	-.00410	.00310
1.925	4.249	1.09710	.59070	.30170	-.01550	.64020	.17310	.06280	.00260	.00770
	GRADIENT	-.00020	.00080	.00017	-.00048	.00081	.00000	-.01708	.00189	-.00260

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TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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(REB085) ( 12 AUG 75 )

AVES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XPRP = 1076.6800 IN. XO  
 YPRP = .0000 IN. YO  
 ZPRP = 375.0000 IN. ZO

RUDDER = 5.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

## PARAMETRIC DATA

RUN NO. 367/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-3.965	-3.837	.90080	-32380	.13220	.09000	-33220	.10950	.10410	-.01920	.00030
-3.963	.195	.90200	-33530	.13300	.09620	-34370	.10950	.01460	-.00810	-.00020
-3.957	4.274	.89830	-32350	.12710	.08530	-33150	.10440	-.07330	.00230	.00030
	GRADIENT	-.00031	.00004	-.00063	-.00058	.00009	-.00063	-.02187	.00265	.00000

RUN NO. 368/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
.052	-3.869	.90100	-.08520	.11260	.06800	-.08510	.11270	.10030	-.01870	.00410
.054	.179	.90040	-.09170	.11100	.07210	-.09160	.11100	.01460	-.00760	.00020
.050	4.252	.89880	-.08360	.10770	.06440	-.08350	.10780	-.07170	.00330	-.00320
	GRADIENT	-.00027	.00020	-.00060	-.00044	.00020	-.00060	-.02118	.00271	-.00090

RUN NO. 369/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
4.021	-3.873	.89750	.13830	.11800	.04910	.14620	.10800	.09820	-.01770	.00670
4.021	.183	.89880	.13190	.11820	.05330	.13980	.10870	.01530	-.00720	.00050
4.023	4.246	.89820	.13990	.11530	.04810	.14770	.10520	-.07010	.00340	-.00510
	GRADIENT	.00009	.00020	-.00033	-.00012	.00019	-.00034	-.02073	.00260	-.00145

RUN NO. 370/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
7.876	-3.866	.89790	.33210	.15220	.03700	.34980	.10530	.09100	-.01510	.00890
7.884	.183	.89820	.33680	.15270	.03820	.35450	.10510	.01310	-.00620	.00150
7.882	4.244	.90010	.33750	.15060	.03520	.35500	.10290	-.06430	.00180	-.00620
	GRADIENT	.00027	.00067	-.00020	-.00022	.00064	-.00030	-.01915	.00208	-.00186

RUN NO. 371/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.537	-3.854	.90010	.50860	.21280	.03170	.54160	.10330	.08920	-.01290	.01250
11.920	.190	.89920	.50970	.21220	.03700	.54250	.10240	.01080	-.00680	.00310
11.907	4.258	.89410	.50490	.20990	.03300	.53740	.10120	-.06730	-.00080	-.00680
	GRADIENT	-.00074	-.00046	-.00036	.00016	-.00052	-.00026	-.01929	.00149	-.00238

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE066) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

YMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = 5.000 SPDRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

RUN NO. 372/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.037	-7.845	.59570	-25980	.09670	.05120	-.26490	.07830	.16260	-.02150	.00230
-3.899	-3.843	.59400	-26480	.10120	.05620	-.27100	.08300	.08670	-.01320	.00030
-3.894	.194	.59350	-.27020	.10430	.05940	-.27670	.08570	.01260	-.00700	.00030
-3.902	4.271	.59300	-.26510	.10040	.05560	-.27130	.08220	-.06150	-.00110	.00030
-3.917	8.333	.59490	-.25360	.09470	.05130	-.25550	.07710	-.14350	.00860	-.00180
	GRADIENT	.00012	-.00003	-.00010	-.00008	-.00003	-.00010	-.01827	.00149	.00000

RUN NO. 373/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.065	-7.886	.59560	-.07280	.08600	.04770	-.07270	.08610	.16000	-.02150	.00760
.075	-3.862	.59590	-.07980	.09380	.05310	-.07970	.08990	.08620	-.01300	.00310
.076	.175	.59560	-.08880	.09200	.05770	-.08860	.09220	.01300	-.00650	.00020
.073	4.250	.59540	-.08420	.08980	.05370	-.08910	.08990	-.05970	-.00080	.00190
.069	8.308	.59500	-.07040	.08470	.04830	-.07030	.08480	-.14100	.00900	-.00640
	GRADIENT	-.00006	-.00054	-.00006	.00007	-.00054	-.00000	-.01799	.00150	-.00062

RUN NO. 374/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.021	-7.899	.59400	.10360	.08550	.04760	.10950	.07900	.15850	-.02160	.01170
4.024	-3.864	.59430	.10160	.08960	.05140	.10760	.08220	.08640	-.01280	.00490
4.022	.186	.59530	.09040	.09000	.05640	.09650	.08340	.01340	-.00630	.00020
4.025	4.244	.59610	.09940	.09000	.05270	.10540	.08280	-.05830	-.00060	.00450
4.031	8.294	.59500	.11260	.08560	.04710	.11830	.07750	-.14020	.00980	.01150
	GRADIENT	.00022	-.00027	.00005	.00016	-.00027	.00007	-.01785	.00150	-.00116

RUN NO. 375/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.869	-7.888	.59440	.28880	.09950	.04470	.29970	.05900	.15430	-.02180	.01640
7.986	-3.859	.59440	.29100	.10170	.04900	.30230	.06030	.08470	-.01250	.00650
7.531	.178	.59480	.28460	.10130	.05610	.29600	.06070	.01480	-.00600	.00070
7.982	4.237	.59440	.29420	.10280	.04960	.30560	.06090	-.05940	-.00020	.00690
7.989	8.293	.59320	.30250	.09990	.04480	.31350	.05680	-.13610	.01020	.01690
	GRADIENT	-.00000	.00040	.00014	.00007	.00041	.00007	-.01730	.00152	-.00157



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB066) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XTRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YTRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZTRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 376/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
12.002	-7.846	.50620	.13940	.03960	.52390	.03010	.14570	-.02050	.02250
12.020	-3.839	.49750	.13760	.04860	.51520	.03100	.07600	-.01040	.01040
11.983	.186	.59510	.13760	.05420	.50650	.03310	.01160	-.00490	-.00050
11.980	4.247	.59320	.13870	.04640	.51750	.02200	-.05340	-.00030	-.01120
11.973	8.307	.59370	.13920	.03770	.53450	.02890	-.13180	.01010	-.02280
	GRADIENT	.00015	.00014	-.00027	.00034	.00012	-.01600	.00125	-.00267

## PARAMETRIC DATA

RUDDER = 5.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB067) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XTRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YTRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZTRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 377/ 0 RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.954	-3.849	.30550	.13340	.07240	-.31400	.11200	.08980	-.01190	-.00280
-3.952	.192	.31560	.13560	.07760	-.32420	.11360	.00030	-.00070	-.00290
-3.959	4.272	.30740	.13240	.07060	-.31590	.11090	-.09010	.01030	-.00280
	GRADIENT	.00005	-.00023	-.00022	-.00023	-.00014	-.02215	.00273	.00000

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

RUN NO. 378/ 0 RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.049	-3.871	-.05840	.11530	.05050	-.06830	.11540	.08680	-.01190	.00110
.052	.177	-.07420	.11570	.05480	-.07410	.11580	.00060	-.00070	-.00260
.052	4.253	-.06620	.11540	.04900	-.06610	.11550	-.08740	.01070	-.00630
	GRADIENT	.00007	.00027	-.00019	.00027	.00001	-.02144	.00278	-.00091

RUN NO. 379/ 0 RN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.019	-3.877	.15620	.12380	.03110	.16450	.11250	.08670	-.01150	.00350
4.018	.181	.15180	.12480	.03320	.16020	.11390	.00290	-.00090	-.00330
4.022	4.243	.16050	.12430	.02900	.16880	.11270	-.09330	.01030	-.00880
	GRADIENT	.00002	.00053	-.00026	.00053	.00002	-.02094	.00268	-.00151

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8067) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XPRP = 1076.6800 IN. XO  
 YPRP = .0000 IN. YO  
 ZPRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

RUN NO. 380/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.985	-3.860	.90020	.35640	.16240	.01700	.37550	.11130	.08040	-.00900	.00560
7.993	.182	.90050	.36270	.16330	.01620	.38190	.11130	.00170	-.00090	-.00170
7.992	4.242	.90050	.36360	.16260	.01440	.38260	.11040	-.07960	.00800	-.00970
	GRADIENT	.00004	.00089	.00002	-.00032	.00088	-.00011	-.01975	.00210	-.00189

RUN NO. 381/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.953	-3.856	.91080	.53250	.22520	.01060	.56760	.11000	.07750	-.00740	.00880
11.963	.189	.89950	.53259	.22410	.01460	.56740	.10880	-.00010	-.00140	-.00020
11.953	4.261	.89930	.52750	.22430	.01060	.56250	.11010	-.08030	.00540	-.01030
	GRADIENT	-.00018	-.00062	-.00011	-.00000	-.00063	.00001	-.01944	.00158	-.00235

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8068) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XPRP = 1076.6800 IN. XO  
 YPRP = .0000 IN. YO  
 ZPRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

RUN NO. 382/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.934	-7.845	.59530	-.23670	.09970	.03630	-.24300	.08320	.14840	-.01510	-.00050
-3.918	-3.844	.59550	-.24780	.10560	.04250	-.25440	.08850	.07120	-.00620	-.00320
-3.895	.193	.59550	-.25270	.10840	.04530	-.25950	.09100	-.00330	-.00010	-.00340
-3.903	4.270	.59550	-.24820	.10530	.04120	-.25480	.08810	-.07860	.00620	-.00310
-3.916	8.339	.59590	-.23410	.09900	.03680	-.24030	.08280	.15940	.01550	-.00490
	GRADIENT	-.00000	-.00005	-.00004	-.00016	-.00005	-.00005	-.01846	.00153	.00001

(RE8068) ( 12 AUG 75 )

AMES 11-073(OA148) -140A/B/C/R ORBITER

## REFERENCE DATA

[illegible]

## PARAMETRIC DATA

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.057	-7.888	.59520	-.05690	.09190	.03450	-.05680	.09200	.14810	-.01590	-.00480
.076	-3.860	.59590	-.06280	.09520	.03950	-.06270	.09720	.07120	-.00630	-.00020
.078	.177	.59560	-.06840	.09720	.04240	-.06820	.09720	-.00110	-.00020	-.00290
.074	4.252	.59590	-.06370	.09540	.04310	-.06360	.09550	-.07550	.06620	-.00540
.063	8.307	.59520	-.05260	.09050	.03360	-.05250	.09060	-.15620	.01590	-.00970
		.59590	-.06344	.09002	-.00017	-.00011	.00002	-.01808	-.00154	-.00064

RUN NO.	384/ 0	RM/L	= 4.84	GRADIENT	INTERVAL	= -5.00/	5.00	CY	CYN	CBL
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU			
4.022	-7.901	.5660	.11930	.09330	.03460	.12560	.08470	.14750	-.01650	-.00920
4.025	-3.862	.5950	.11770	.03840	.12420	.12420	.08820	.07300	-.00660	-.00160
4.023	.182	.5660	.10870	.05680	.04310	.11520	.08900	.00030	-.00320	-.00320
4.027	4.243	.5660	.11920	.09750	.03680	.12570	.08890	-.07290	.00610	-.00790
4.033	8.290	.5950	.12970	.09290	.03360	.13590	.08350	-.15420	.01630	-.01460
	GRADIENT	00000	.00019	.00010	-.00020	.00019	.00009	-.01800	.00157	-.00117

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.982	-7.890	.5950	.31410	.10860	.03050	.32620	.06400	.14360	-.01660	-.01430
7.993	-3.860	.59680	.31250	.11100	.03520	.32490	.06640	.07030	-.00640	-.00350
7.991	.185	.5950	.30070	.11000	.04010	.31300	.06710	.00020	-.00030	-.00360
7.992	4.234	.5950	.30980	.11160	.03300	.32240	.06740	.06950	-.01010	-.00600
7.990	8.286	.59580	.31680	.10850	.02980	.33070	.06310	.15050	-.01610	-.01950
GRADIENT		-.00104	-.00032	.00007	-.00027	-.00031	.00012	-.01727	.00153	-.00168

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
1.959	-7.852	.59550	.52500	.14770	.02380	.54420	.03570	.13530	-.01550	.01950
1.978	-3.640	.59590	.51640	.14790	.03250	.53580	.03750	.06270	-.00450	-.00690
1.531	.186	.59580	.50430	.14720	.03750	.52390	.03930	-.00110	.00040	-.00350
1.977	4.246	.59550	.51370	.14720	.02900	.53310	.03740	-.06650	.00540	-.01410
1.969	8.308	.59610	.52660	.14740	.02200	.54770	.03450	.14540	.01560	-.02590
GRADIENT	-.00005	-.00033	-.00009	-.00044	-.00001	-.00033	-.00001	-.01595	.00122	-.00260

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TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C ORBITER

(REB069) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XC  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .900

## PARAMETRIC DATA

RUN NO. 387/ 0 RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.989	-3.851	.89990	.39260	.15220	.12470	.40230	.12450	.08810	-.01150	-.00400
-3.987	-3.851	.90020	-.40560	.15410	.13100	-.41540	.12560	.00240	-.00160	-.00430
-3.981	4.272	.89950	-.39400	.15040	.12250	-.40350	.12270	-.08430	.00800	-.00480
	GRADIENT	-.00005	-.00017	-.00022	-.00027	-.00014	-.00022	-.02122	.00240	-.00010

RUN NO. 388/ 0 RN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.008	-3.868	.90210	-.15310	.12720	.10040	-.15310	.12730	.08480	-.01140	-.00010
.010	.177	.90210	-.15960	.12720	.10410	-.15960	.12730	.00240	-.00150	-.00440
.007	4.253	.90150	-.15220	.12630	.09860	-.15210	.12630	-.08180	.00840	-.00810
	GRADIENT	-.00007	.00011	-.00011	-.00022	.00013	-.00012	-.02051	.00244	-.00101

RUN NO. 389/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.005	-3.869	.89990	.08870	.12930	.07060	.09750	.12270	.08220	-.01050	.00330
4.002	.179	.90050	.07730	.12830	.07560	.08610	.12260	.00260	-.00140	-.00420
4.006	4.240	.90210	.08660	.12930	.07170	.09540	.12290	-.07800	.00800	-.01110
	GRADIENT	.00027	-.00026	.00000	.00014	-.00026	.00002	-.01976	.00228	-.00178

RUN NO. 390/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.976	-3.869	.89970	.31460	.16400	.04300	.33430	.11880	.07810	-.00830	.00560
7.978	.182	.89900	.31320	.16370	.04240	.33290	.11870	.00090	-.00080	-.00230
7.979	4.241	.90110	.31770	.16310	.03920	.33730	.11750	-.07630	.00690	-.01060
	GRADIENT	.00017	.00038	-.00011	-.00047	.00037	-.00016	-.01904	.00187	-.00200

RUN NO. 391/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.530	-3.853	.90230	.49310	.22490	.03590	.52890	.11790	.07490	-.00620	.00930
11.955	.189	.90090	.48630	.22290	.04070	.52200	.11740	-.00020	-.00170	-.00010
11.948	4.260	.89710	.48600	.22170	.03910	.52140	.11630	-.07570	.00370	-.00950
	GRADIENT	-.00064	-.00087	-.00039	.00027	-.00092	-.00020	-.01856	.00122	-.00232

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(RE8073) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORBITER

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.949	-7.852	.59610	-.32160	.11330	.07740	-.32860	.09090	.14950	-.01490	-.00270
-3.933	-3.843	.59680	-.33130	.11970	.08320	-.33870	.09670	.07350	-.00650	-.00520
-3.929	.189	.59710	-.33750	.12300	.08630	-.34520	.09950	-.00040	-.00050	-.00500
-3.935	4.269	.59710	-.32910	.11990	.08120	-.33660	.09700	-.07460	.00540	-.00390
-3.949	8.334	.59620	-.31770	.11300	.07710	-.32470	.09090	-.15380	.01430	-.00510
	GRADIENT	.00004	.00027	.00062	-.00025	.00026	.00004	-.01826	.00147	.00016

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.049	-7.888	.59620	-.13560	.09980	.07230	-.13550	.09990	.14710	-.01510	.00310
.056	-3.864	.59650	-.14470	.10350	.07770	-.14460	.10370	.07200	-.00620	-.00150
.058	.180	.59620	-.15050	.10590	.08140	-.15040	.10610	-.00020	-.00040	-.00390
.056	4.251	.59560	-.14390	.10430	.07690	-.14380	.10440	-.07220	.00530	-.00590
.051	8.306	.59590	-.13170	.09870	.07210	-.13160	.09890	-.15140	.01460	-.00930
	GRADIENT	.00001	.00010	.00010	-.00010	.00010	.00009	-.01777	.00142	.00254

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.000	-7.898	.59590	.03980	.09680	.07220	.04640	.09380	.14550	-.01580	.00740
4.002	-3.861	.59590	.03630	.10040	.07650	.04320	.09760	.07170	-.00650	.00080
4.000	.182	.59590	.02620	.10070	.08170	.03320	.09870	.00200	-.00070	-.00380
4.003	4.239	.59560	.03550	.10130	.07560	.04390	.09850	-.07050	.00540	-.00810
4.009	8.292	.59560	.04760	.09610	.07220	.05420	.09260	-.14970	.01490	-.01460
	GRADIENT	-.00004	.00008	.00011	-.00011	.00009	.00011	-.01756	.00147	.00110

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.945	-7.690	.59660	.22740	.10590	.06860	.23980	.07350	.14340	-.01630	.01300
7.956	-3.660	.59620	.22400	.10880	.07510	.23690	.07680	.07140	-.00660	.00280
7.535	.181	.59660	.21150	.10830	.08070	.22440	.07800	.00250	-.00090	-.00430
7.955	4.234	.59620	.21960	.10550	.07400	.23260	.07810	-.06760	.00510	-.01520
7.954	8.280	.59590	.22820	.10580	.07110	.24070	.07320	-.14570	.01480	-.01980
	GRADIENT	-.00000	-.00054	.00009	-.00014	.00053	.00016	-.01720	.00145	.00164

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RE8070) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

RUN NO. 398/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.935	-7.848	.59590	.42780	.13750	.08730	.44700	.04610	.13350	-.01500	.01840
11.942	-3.851	.59600	.41820	.13770	.07560	.43760	.04820	.06630	-.00510	.00590
11.947	.182	.59560	.41120	.13970	.07960	.43100	.05060	.00150	-.00030	-.00440
11.942	4.245	.59560	.41500	.13790	.07300	.43450	.04900	-.06150	.00420	-.01410
11.935	8.309	.59510	.43220	.13690	.06610	.45120	.04450	-.14070	.01450	-.02570
	GRADIENT	.00007	-.00039	.00002	-.00032	-.00038	.00010	-.01579	.00115	-.00247

AMES 11-073(0A148) -140A/B/C ORBITER

(RE8071) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

RUN NO. 397/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.946	-3.857	1.39650	-.26280	.21150	.11040	-.27670	.19290	.07400	-.00290	-.00130
-3.940	.190	1.39740	-.26730	.21340	.11480	-.28140	.19450	-.00980	-.00450	-.00660
-3.946	4.272	1.39550	-.26020	.21020	.10920	-.27400	.19180	-.09360	.01190	-.01130
	GRADIENT	-.00037	.00032	-.00016	-.00015	.00033	-.00014	-.02062	.00182	-.00123

RUN NO. 398/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.016	-3.873	1.39770	-.05980	.18940	.06490	-.05980	.18940	.06710	-.00170	-.00050
.022	.180	1.39780	-.05950	.19040	.06760	-.05940	.19050	-.00960	-.00490	-.00600
.018	4.248	1.39590	-.05650	.18980	.06430	-.05640	.18980	-.08580	.01130	-.01100
	GRADIENT	-.00022	.00041	.00005	-.00007	.00042	.00005	-.01883	.00160	-.00129

RUN NO. 399/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.951	-3.877	1.39580	.13770	.19220	.02630	.15060	.18220	.06240	.00050	.00130
3.952	.179	1.39700	.13330	.19240	.03010	.14620	.18230	-.00790	.00480	-.00550
3.956	4.242	1.39550	.14240	.19410	.02590	.15540	.18380	-.07850	.00910	-.01230
	GRADIENT	-.00004	.00058	.00023	-.00005	.00059	.00020	-.01735	.00106	-.00168

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE8071) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

RUN NO. 400/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.987	-3.873	1.39630	.32720	.22100	-.00250	.35470	.17340	.05850	.00200	.00120
7.995	.177	1.39730	.32960	.22210	-.00050	.35730	.17410	-.00520	.00430	-.00540
7.892	4.237	1.39700	.33110	.22280	-.00220	.35860	.17520	-.07160	.00690	-.01220
	GRADIENT	.00009	.00048	.00022	.00004	.00048	.00022	-.01604	.00060	-.00165

RUN NO. 401/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.960	-3.861	1.39480	.51030	.27700	-.02770	.55670	.16530	.06270	.00200	.00190
11.969	.177	1.39770	.51220	.27720	-.02780	.55850	.16490	-.00320	.00420	-.00460
11.967	4.251	1.39660	.51190	.27890	-.02660	.55860	.16670	-.07780	.00820	-.01040
	GRADIENT	.00022	.00020	.00023	.00014	.00023	.00017	-.01732	.00076	-.00152

RUN NO. 402/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
15.903	-3.840	1.39510	.68200	.35720	-.04560	.75380	.15660	.05830	.00660	.00320
15.917	.180	1.39510	.68760	.36090	-.04800	.76040	.15840	-.00530	.00440	-.00400
15.910	4.280	1.39780	.68150	.36000	-.04450	.75410	.15940	-.07160	.00320	-.01110
	GRADIENT	.00033	.00007	.00034	.00014	.00003	.00034	-.01600	-.00042	-.00176

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.250

RUN NO. 403/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.944	-3.854	1.24760	.32300	.22020	.15220	.33730	.19750	.07730	-.00560	-.00180
-3.937	.190	1.24710	.32680	.21970	.15550	.34110	.19670	-.00850	.00410	-.00750
-3.943	4.266	1.24650	.31840	.21840	.15020	.33270	.19600	-.09430	.01340	-.01260
	GRADIENT	.00014	.00057	.00022	-.00025	.00057	-.00018	-.02113	.00234	-.00133

**DATE 08 MAY 76**

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(OA148) -140A/B/C ORBITER

(REB072) ( 12 AUG 75 )

## REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XPRP	=	.076.6800	IN.	XO
LREF	=	474.8000	IN.	YPRP	=	.0000	IN.	YO
BNRF	=	936.6800	IN.	ZPRP	=	375.0000	IN.	ZO
SCALE	=	.0300						

## PARAMETRIC DATA

RUDDER =	-5.000	SPDRBK =	55.000
BOFLAP =	16.300	ELVN-L =	-10.000
ELVN-R =	-10.000	MACH =	1.250

RUN NO.	404/ 0	FN/L	3.01	GRADIENT	INTERVAL	-5.00/	5.00	CY	CYN	CSL
MACH										
1.24910	-0.07930	.19420	.08960	-0.07910	.19420	.08960	-0.0320			-0.00050
1.24540	-0.08020	.19520	.09150	-0.08000	.19520	.09150	-0.0730	.00460		-0.00680
1.24650	-0.07670	.19510	.08730	-0.07660	.19510	.08660	-0.1190	.01190		-0.01280
-0.00032	-0.00032	.00011	-0.00028	-0.00031	.00011	-0.01925	-0.0186			-0.00152

[illegible]

RUN NO.	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
1.24720		.34190	.23080	.00930	.37040	.18140	.06250	-.00010	-.00060
1.24680		.34800	.23260	.00730	.37680	.18230	-.00460	-.00430	-.00660
1.24700		.35350	.23430	.00590	.38250	.18320	-.07440	.00890	-.01340
-.00002		.00143	.00043	-.00038	.00149	.00022	-.01688	.00111	-.00173

RUN NO.	407/ 0	FN/L	= 3.01	GRADIENT INTERVAL	= -5.00/ 5.00	CAU	CY	CYN	CBL
MACH									
1.24790	.54650	.29390	-.01580	.59570	.17350	.00660	.00140		
1.24530	.55450	.29560	-.01560	.60390	.17340	-.00690	.00530		
1.24490	.54990	.29690	-.01400	.59970	.17580	-.07710	.00860		
1.24037	.00042	.00038	.00022	.00049	.00028	-.01699	.00091		



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TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/E/C ORBITER

(RE8073) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XPRP = 1076.6800 IN. X0  
 YPRP = .0000 IN. Y0  
 ZPRP = 375.0000 IN. Z0

RUDDER = -5.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 408/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00		CYN		CY		CBL	
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CY	CYN	CBL
-3.958	-3.850	-39640	.22250	.18320	-41080	.19460	.07870	-00660	.07870	-00660	-00790
-3.953	.190	-40170	.22240	.18720	-41600	.19420	-00820	.00380	-00820	.00380	-00900
-3.960	4.266	-39610	.22220	.18260	-41050	.19440	-10060	.01600	-10060	.01600	-00990
	GRADIENT	.00004	-00004	-00008	.00004	-00002	-02209	.00278	-02209	.00278	-00025
RUN NO. 409/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00											
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CY	CYN	CBL
.047	-3.869	-12390	.19290	.12330	-12660	.19300	.07300	-00600	.07300	-00600	-00040
.052	.177	-13690	.19290	.13300	-13670	.19300	-00610	.00370	-00610	.00370	-00770
.046	4.245	-12740	.19240	.12280	-12730	.19250	-09140	.01520	-09140	.01520	-01690
	GRADIENT	-00007	-00006	-00006	-00008	-00006	-02026	.00261	-02026	.00261	-00213
RUN NO. 410/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00											
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CY	CYN	CBL
4.012	-3.872	.12660	.20140	.06940	.14040	.19210	.06920	-00510	.06920	-00510	-00240
4.014	.182	.12020	.20170	.07570	.13400	.19260	-00630	.00390	-00630	.00390	-00710
4.006	4.238	.12400	.20170	.07020	.13770	.19260	-08760	.01470	-08760	.01470	-01720
	GRADIENT	-00032	.00004	.00010	-00033	.00006	-01933	.00244	-01933	.00244	-00242
RUN NO. 411/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00											
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CY	CYN	CBL
7.976	-3.868	.33600	.23790	.03970	.36580	.18900	.06840	-00500	.06840	-00500	-00210
7.984	.174	.34160	.23920	.03480	.37140	.18940	-00460	.00380	-00460	.00380	-00720
7.984	4.233	.34680	.24000	.03610	.37670	.18950	-08650	.01520	-08650	.01520	-01590
	GRADIENT	.00133	.00026	-00044	.00135	.00006	-01912	.00249	-01912	.00249	-00222
RUN NO. 412/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00											
ALPHA	BETA	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CY	CYN	CBL
12.067	-3.848	.54730	.30090	.01670	.59810	.17980	.05900	-00190	.05900	-00190	-00610
12.077	.180	.55150	.30140	.01720	.60230	.17930	-00690	.00550	-00690	.00550	-00530
12.076	4.245	.55380	.30410	.01640	.60520	.18150	-08290	.01370	-08290	.01370	-01670
	GRADIENT	.00080	.00040	-00004	.00088	.00021	-01754	.00193	-01754	.00193	-00282

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RE8074) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -5.000  
 BOFLAP = 16.500  
 ELVN-R = -10.000  
 MACH = .900

## PARAMETRIC DATA

RUN NO. 413/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.998	-3.854	.90110	.41170	.14770	.14190	.42100	.11860	.07050	-.00280	-.00900
-3.915	.189	.90080	.41660	.15050	.14870	-.42590	.12170	-.01450	.00670	-.00950
-3.961	4.266	.90050	.41040	.14890	.14240	-.41970	.12020	-.10040	.01620	-.00930
	GRADIENT	-.00007	.00016	.00015	.00006	.00016	.00030	-.02105	.00234	-.00004

RUN NO. 414/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.055	-3.858	.90200	.17120	.12120	.11910	.17110	.12130	.06880	-.00320	-.00460
.084	.180	.90140	.17600	.12330	.12390	-.17590	.12350	-.01350	.00640	-.00900
.055	4.248	.90040	.16870	.12210	.11670	-.16860	.12230	-.09810	.01620	-.01290
	GRADIENT	-.00020	.00031	.00011	-.00030	.00031	.00012	-.02056	.00239	-.00102

RUN NO. 415/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.001	-3.875	.90080	.06420	.12100	.09090	.07250	.11630	.06730	-.00280	-.00100
4.079	.183	.90230	.06230	.12360	.09520	.07100	.11880	-.01170	.00590	-.00830
4.001	4.242	.90110	.06690	.12270	.09110	.07530	.11770	-.09330	.01530	-.01530
	GRADIENT	.00004	.00033	.00021	.00002	.00035	.00017	-.01579	.00223	-.00176

RUN NO. 416/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.933	-3.872	.90020	.29280	.15500	.06360	.31140	.11310	.06530	-.00160	.00070
8.028	.177	.90140	.29230	.15410	.06430	.31100	.11180	-.01160	.00560	-.00690
8.031	4.235	.90230	.30050	.15490	.05980	.31920	.11140	-.08850	.01350	-.01490
	GRADIENT	.00026	.00095	-.00001	-.00047	.00096	-.00021	-.01897	.00186	-.00192

RUN NO. 417/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.520	-3.859	.90110	.47540	.21370	.05640	.50940	.11030	.06370	.00040	.00540
12.020	.183	.90210	.46930	.21260	.06230	.50330	.11020	-.01240	.00480	-.00370
12.054	4.256	.90150	.47250	.21460	.05890	.50690	.11120	-.08900	.01010	-.01320
	GRADIENT	.00005	-.00036	.00011	.00031	-.00031	.00011	-.01882	.00120	-.00229

(RE8075) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORBITER

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = -5.000 SPOBRK = 55.000  
BOFLAP = 16.300 ELVN-L = -10.000  
ELVN-R = -10.000 MACH = .600

RUN NO. 418/ 0 RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
-3.999	-7.854	.59550	-.34320	.10950	.09220	-.35000	.08530	.13230	-.00680
-3.939	-3.648	.59590	-.34870	.11600	.09780	-.35580	.09180	.05630	-.00190
-3.938	.187	.59690	-.35830	.11910	.10160	-.36560	.09420	-.01690	-.00750
-3.926	4.266	.59690	-.34670	.11540	.09540	-.35380	.09140	-.09080	.01340
-3.941	8.332	.59620	-.33600	.10910	.09130	-.34270	.08580	-.16910	.02170
	GRADIENT	.00012	.00025	-.00008	-.00030	.00025	-.00005	-.01813	.00142

RUN NO. 419/ 0 RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
.043	-7.890	.59630	-.15500	.09400	.08700	-.15500	.09410	.13210	-.00790
.091	-3.863	.59620	-.16230	.09830	.09310	-.16210	.09860	.05610	-.00170
.092	.181	.59620	-.16860	.10060	.09660	-.16840	.10090	-.01580	-.00830
.077	4.247	.59560	-.16070	.09850	.09070	-.16050	.09870	-.08890	-.01050
.073	8.305	.59590	-.14780	.09340	.08630	-.14770	.09360	-.16630	.02120
	GRADIENT	.00005	.00020	.00002	-.00030	.00020	.00001	-.01788	.00139

RUN NO. 420/ 3 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
4.023	-7.904	.59560	.02030	.09020	.08720	.02660	.08850	.13340	-.00340
4.026	-3.864	.59620	.01770	.09410	.09210	.02430	.09260	.05690	-.00370
4.153	.177	.59580	.01420	.09380	.09690	.02100	.09250	-.01290	-.00800
4.012	4.240	.59690	.02150	.09350	.08840	.02800	.09180	-.06540	-.01240
4.017	8.288	.59550	.03080	.08910	.08580	.03700	.08670	-.16340	.02120
	GRADIENT	.00009	.00047	-.00007	-.00046	.00046	-.00010	-.01756	.00142

RUN NO. 421/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CBL
7.959	-7.893	.59620	.20760	.09750	.08450	.21910	.06790	.13180	-.00920
7.971	-3.863	.59620	.20560	.09830	.09120	.21750	.07120	.05850	-.00150
8.077	.178	.59690	.19680	.09830	.09600	.20880	.07030	-.00990	-.00810
8.079	4.235	.59620	.20960	.10100	.08830	.22170	.07050	-.08150	-.01480
8.076	8.290	.59580	.21650	.09640	.08530	.22810	.06700	-.15910	.02060
	GRADIENT	-.00000	.00050	.00004	-.00035	.00052	-.00009	-.01729	-.00144

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REB075) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = -5.000 SPOBRK = 95.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BOFLAP = 16.300 ELVN-L = -10.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = -10.000 MACH = .600  
 SCALE = .0300

## PARAMETRIC DATA

RUN NO. 422/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.984	-7.850	.59620	.41180	.12820	.08240	.42940	.03990	.12280	-.00900	.01520
12.003	-3.840	.59590	.40320	.12770	.09200	.42100	.04110	.05330	.00140	.00230
12.008	.180	.59660	.39400	.12740	.09610	.41190	.04260	-.01050	.00580	-.00800
12.057	4.244	.59620	.40740	.12830	.08770	.42520	.04040	-.07500	.01060	-.01830
12.114	8.307	.59690	.42440	.12950	.07960	.44210	.03750	-.15250	.02020	-.02890
	GRADIENT	.00004	.00052	.00007	-.00053	.00052	-.00009	-.01587	.00114	-.00255

AMES 11-073(0A148) -140A/B/C ORBITER

(REB076) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = -10.000 SPOBRK = .000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BOFLAP = -11.700 ELVN-L = 10.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = -10.000 MACH = 1.400  
 SCALE = .0300

## PARAMETRIC DATA

RUN NO. 423/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.004	-3.853	1.39670	-.20800	.17820	.05320	-.21990	.16330	.04270	.00820	.01460
-4.001	.191	1.39290	-.21310	.18050	.05830	-.22520	.16510	-.03510	.01300	.01100
-3.983	4.275	1.38950	-.20820	.17900	.05400	-.22310	.16410	-.11320	.01830	.00740
	GRADIENT	-.00089	-.00002	.00010	.00010	-.00002	.00010	-.01918	.00124	-.00089

RUN NO. 424/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.029	-3.866	1.39220	-.00580	.15960	.01340	-.00570	.15960	.04160	.00710	.01470
.033	.181	1.39250	-.01090	.16240	.01790	-.01080	.16240	-.02810	.01050	.01030
.029	4.255	1.38910	-.00950	.16270	.01600	-.00940	.16270	-.09830	.01450	.00610
	GRADIENT	-.00039	-.00045	.00039	.00032	-.00045	.00038	-.01723	.00091	-.00106

RUN NO. 425/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.961	-3.871	1.39090	.18760	.16790	-.01920	.19880	.15460	.03920	.00690	.01590
3.962	.187	1.39240	.18190	.17000	-.01430	.19320	.15700	-.02290	.00820	.01060
3.963	4.246	1.39250	.18610	.17120	-.01710	.19750	.15900	-.08630	.01000	.00510
	GRADIENT	.00020	-.00018	.00041	.00026	-.00016	.00042	-.01546	.00038	-.00133

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XPRP = 1076.6800 IN. XO RUDDER = -10.000 SPOBRK = -0.000  
LREF = 474.8000 IN. YPRP = .0000 IN. YO BOFLAP = -11.700 ELVN-L = 10.000  
BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO ELVN-R = -10.000 MACH = 1.400  
SCALE = .0300

PARAMETRIC DATA  
RUN NO. 426/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHA 7.887 BETA -3.866 MACH 1.39320 CLU .37670 CDU .20070 CLMU -.04530 CNU .40060 CAU .14710 CY .03590 CBL .01760  
7.964 .189 1.39440 .37150 .23190 -.04110 .39590 .14850 -.02170 .00660 .00720 .01190  
7.961 4.247 1.39210 .37090 .20430 -.04280 .39560 .15100 -.07920 .00650 .00660 .00610  
GRADIENT -.00014 -.00071 .00044 .00031 -.00062 .00048 -.01418 -.00009 -.00142

6 ALPHA 11.871 BETA -3.849 MACH 1.35240 CLU .55720 CDU .26230 CLMU -.06720 CNU .59820 CAU .14200 CY .03950 CBL .01790  
11.913 .191 1.35290 .55940 .26450 -.06630 .59800 .14420 -.02140 .00610 .00660 .00610  
11.908 4.262 1.39360 .55140 .26380 -.06520 .59400 .14440 -.08380 .00630 .00760 .00760  
GRADIENT .00015 -.00072 .00018 .00025 -.00064 .00030 -.01520 -.00004 -.00125

RUN NO. 427/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHA 15.905 BETA -3.830 MACH 1.39170 CLU .73000 CDU .35020 CLMU -.08370 CNU .79810 CAU .13670 CY .03680 CBL .01980  
15.917 .190 1.39500 .73080 .35400 -.08340 .79990 .14000 -.01950 .00460 .00460 .01360  
15.907 4.230 1.39550 .72170 .35100 -.08040 .79030 .13980 -.07800 .00070 .00070 .00710  
GRADIENT .00047 -.00103 .00010 .00041 -.00097 .00038 -.01414 -.00116 -.00156

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XPRP = 1076.6800 IN. XO RUDDER = -10.000 SPOBRK = -0.000  
LREF = 474.8000 IN. YPRP = .0000 IN. YO BOFLAP = -11.700 ELVN-L = 10.000  
BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO ELVN-R = -10.000 MACH = 1.250  
SCALE = .0300

PARAMETRIC DATA  
RUN NO. 429/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHA 4.016 BETA -3.849 MACH 1.24760 CLU .24940 CDU .18230 CLMU .08080 CNU .26150 CAU .18440 CY .03370 CBL .01990  
-4.011 .186 1.24430 .25890 .18320 .08680 .27120 .16660 .04510 -.04510 .01610 .01560  
-4.020 4.275 1.24430 .25630 .18490 .08360 .26860 .16650 .12390 .02280 .02280 .01100  
GRADIENT -.00041 -.00085 .00032 .00034 -.00087 .00026 -.01940 .00155 -.00097

(RE8077) ( 12 AUG 75 )  
PARAMETRIC DATA  
RUN NO. 429/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHA 4.016 BETA -3.849 MACH 1.24760 CLU .24940 CDU .18230 CLMU .08080 CNU .26150 CAU .18440 CY .03370 CBL .01990  
-4.011 .186 1.24430 .25890 .18320 .08680 .27120 .16660 .04510 -.04510 .01610 .01560  
-4.020 4.275 1.24430 .25630 .18490 .08360 .26860 .16650 .12390 .02280 .02280 .01100  
GRADIENT -.00041 -.00085 .00032 .00034 -.00087 .00026 -.01940 .00155 -.00097

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RE8077) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

YMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDER = -10.000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.250

RUN NO. 430/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.987	-3.863	1.24470	-.01720	.16250	.02950	-.01710	.16250	.03350	.00900	.01820
3.988	.176	1.24590	-.02260	.16550	.03310	-.02260	.16550	-.03660	.01330	.01340
3.988	4.255	1.24470	-.02080	.16660	.03070	-.02070	.16660	-.10820	.01830	.00650
	GRADIENT	-.00000	-.00044	.00050	.00015	-.00044	.00050	-.01745	.00115	-.00119

RUN NO. 431/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.987	-3.868	1.24570	.20290	.17360	-.01350	.21450	.15910	.03220	.00830	.01920
3.988	.182	1.24530	.19660	.17540	-.00880	.20830	.16130	-.03050	.01070	.01370
3.988	4.246	1.24430	.19930	.17780	-.01160	.21120	.16360	-.09580	.01380	.00840
	GRADIENT	-.00017	-.00044	.00052	.00023	-.00041	.00055	-.01577	.00058	-.00142

RUN NO. 432/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.974	-3.859	1.24470	.41310	.21240	-.04450	.43860	.15310	.03000	.00820	.02270
7.979	.184	1.24430	.41110	.21400	-.04150	.43680	.15490	-.02650	.00930	.01520
7.978	4.242	1.24570	.40970	.21690	-.04130	.43580	.15790	-.08750	.01090	.00860
	GRADIENT	.00012	-.00042	.00056	.00039	-.00035	.00059	-.01450	.00033	-.00174

RUN NO. 433/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.961	-3.847	1.24660	.61520	.28180	-.06560	.66030	.14820	.02700	.00910	.02610
11.970	.192	1.24530	.61460	.28400	-.06260	.66010	.15030	-.03110	.00980	.01770
11.962	4.260	1.24430	.60410	.28310	-.05580	.64970	.15170	-.09020	.01010	.01030
	GRADIENT	-.00028	-.00137	.00016	.00072	-.00131	.00043	-.01446	.00012	-.00195

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RE8078) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
BDFLAP = -11.700 ELVN-L = 10.000  
ELVN-R = -10.000 MACH = 1.100

RUN NO. 434/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.062	-3.838	1.10000	-29600	.18130	.09400	-30810	.15990	.02060	.01330	.02090
-4.058	.195	1.09910	-31240	.18400	.10250	-32460	.16140	-.05810	.02030	.01940
-4.055	4.277	1.09880	-31690	.18820	.10490	-32940	.16530	-.13940	.02850	.01820
	GRADIENT	-.00015	-.00257	.00085	.00134	-.00262	.00067	-.01972	.00187	-.00033

RUN NO. 435/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.040	-3.863	1.09880	-.03770	.15850	.04710	-.03760	.15850	.01790	.01240	.02600
.041	.186	1.10000	-.04910	.15910	.05470	-.04890	.15910	-.05410	.01850	.01970
.036	4.252	1.09830	-.04770	.16270	.05140	-.04760	.16270	-.12650	.02600	.01140
	GRADIENT	-.00006	-.00123	.00052	.00053	-.00123	.00052	-.01779	.00168	-.00180

RUN NO. 436/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.006	-3.864	1.09880	.21420	.17500	.00140	.22590	.15960	.01770	.01190	.02660
4.004	.194	1.09918	.20330	.17460	.00700	.21500	.16000	-.04490	.01560	.01970
4.004	4.242	1.09880	.20280	.17790	.00640	.21480	.16340	-.11610	.02310	.01060
	GRADIENT	.00000	-.00141	.00036	.00062	-.00137	.00047	-.01651	.00138	-.00195

RUN NO. 437/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
8.022	-3.857	1.10030	.43700	.21780	-.02980	.46310	.15470	.01410	.01180	.02820
8.002	.186	1.09910	.42850	.21810	-.02810	.45470	.15630	-.04590	.01490	.02160
7.997	4.238	1.10150	.41730	.22050	-.02330	.44390	.16030	-.10970	.02040	.01250
	GRADIENT	.00015	-.00243	.00033	.00080	-.00237	.00069	-.01529	.00106	-.00194

RUN NO. 438/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.553	-3.838	1.09800	.63910	.28750	-.04400	.68390	.14890	.01550	.01030	.03110
11.967	.194	1.09680	.62940	.28990	-.04180	.67580	.15310	-.04390	.01360	.02170
11.958	4.256	1.09720	.62070	.28900	-.04040	.66710	.15410	-.10410	.01760	.01310
	GRADIENT	-.00010	-.00215	.00018	.00044	-.00206	.00064	-.01478	.00090	-.00222

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITTER

(RE079) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDER = -10.000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .900

RUN NO. 439/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.051	-3.840	.89870	-.29990	.11110	.06710	-.30700	.08970	.01560	.01260	.02440
-4.055	.202	.90090	-.32740	.11630	.08130	-.33480	.09280	-.06640	.02010	.02360
-4.070	4.283	.90030	-.33200	.11480	.07770	-.33930	.09100	-.15270	.03060	.01950
	GRADIENT	.00020	-.00395	.00045	.00130	-.00397	.00016	-.02072	.00222	-.00060

RUN NO. 440/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.045	-3.859	.90050	-.05810	.09110	.04690	-.05800	.09120	.01150	.01240	.02780
.042	.192	.90020	-.07730	.09400	.05700	-.07730	.09400	-.06830	.02110	.02240
.032	4.260	.89800	-.08330	.09500	.05460	-.08320	.09500	-.14970	.03120	.01610
	GRADIENT	-.00031	-.00310	.00048	.00095	-.00310	.00047	-.01986	.00232	-.00144

RUN NO. 441/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.023	-3.861	.90080	.17960	.10150	.02570	.18630	.08870	.01280	.01250	.02810
4.017	.197	.90110	.16570	.10290	.03090	.17250	.09100	-.06610	.02080	.02250
4.017	4.251	.90020	.16170	.10220	.02700	.16840	.09060	-.14290	.02900	.01590
	GRADIENT	-.00007	-.00221	.00009	.00016	-.00221	.00023	-.01919	.00203	-.00152

RUN NO. 442/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.937	-3.857	.90050	.39290	.14210	.00700	.40870	.08650	.01350	.01340	.02720
7.934	.192	.90170	.38290	.14290	.00800	.39890	.08870	-.06010	.01910	.02040
7.926	4.250	.89830	.37890	.14060	.00410	.39470	.08700	-.13150	.02490	.01260
	GRADIENT	-.00027	-.00173	-.00019	-.00036	-.00173	.00006	-.01789	.00142	-.00180

RUN NO. 443/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.639	-3.847	.89950	.56380	.21050	.00410	.59520	.08900	.02130	.01260	.03000
11.976	.196	.90020	.55840	.21210	.00730	.59030	.09160	-.04990	.01520	.02160
11.956	4.265	.89700	.54200	.20640	.00490	.57300	.08960	-.12010	.01950	.01180
	GRADIENT	-.00031	-.00269	-.00051	.00010	-.00274	.00007	-.01743	.00085	-.00224



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(RE080) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

XMRP = 1076.6900 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = -10.000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .600

## PARAMETRIC DATA

RUN NO. 444/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.078	-7.858	.59650	-22380	.07600	.02090	-22860	.05990	.07390	.01210	.02170
-4.062	-3.836	.59780	-23310	.08190	.03390	-23840	.06510	-.00080	.01790	.02080
-4.061	.183	.59710	-24150	.08500	.03640	-24690	.06770	-.07190	.02220	.02090
-3.963	4.258	.59710	-23390	.08140	.02980	-23890	.06500	-.14590	.02760	.02000
-3.997	8.327	.59790	-22050	.07540	.02340	-22520	.05990	-.21810	.03190	.02130
	GRADIENT	-.00009	-.00309	-.00006	-.00051	-.00006	-.00001	-.01793	.00120	-.00010

RUN NO. 445/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-4.053	-7.856	.59680	-03910	.06550	.02670	-03920	.06550	.06890	.01160	.02700
-4.008	-3.854	.59550	-04610	.07140	.03230	-04610	.07140	-.00340	.01800	.02370
.029	.176	.59520	-05440	.07410	.03500	-05440	.07410	-.07150	.02250	.02140
.052	4.239	.59590	-04850	.07040	.02720	-04850	.07040	-.14300	.02760	.01840
.005	8.284	.59590	-03800	.06400	.02060	-03800	.06400	-.21680	.03330	.01610
	GRADIENT	.00005	-.00029	-.00012	-.00063	-.00029	-.00012	-.01725	.00119	-.00065

RUN NO. 446/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.903	-7.902	.59620	.14360	.06800	.02720	.14790	.05810	.06570	.01110	.03330
3.907	-3.866	.59590	.13670	.07360	.03290	.14140	.06410	-.00600	.01810	.02800
3.984	.180	.59620	.13290	.07580	.03470	.13790	.06640	-.07390	.02320	.02360
3.988	4.226	.59650	.13320	.07340	.02760	.13800	.06400	-.14260	.02730	.01900
4.029	8.276	.59660	.14450	.06670	.02050	.14880	.05630	-.21640	.03410	.01330
	GRADIENT	.00007	-.00043	-.00002	-.00066	-.00042	-.00001	-.01688	.00114	-.00111

RUN NO. 447/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.903	-7.896	.59590	.33270	.08550	.02760	.34130	.03900	.06210	.01040	.04060
7.912	-3.851	.59710	.32920	.08900	.03100	.33830	.04290	-.00700	.01730	.03180
8.039	.184	.59590	.32750	.09120	.03710	.33710	.04440	-.07670	.02320	.02510
8.016	4.233	.59550	.33100	.09060	.02360	.34040	.04350	-.14070	.02580	.02010
8.043	8.283	.59690	.33860	.08650	.01960	.34730	.03820	-.21200	.03230	.02020
	GRADIENT	-.00020	.00022	.00020	-.00092	.00026	.00007	-.01654	.00105	-.00145

DATE 08 MAY 76

TABULATED FORCE DATA - QAI48 ( AMES 11-073-1 )

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AMES 11-073(QAI48) -140A/B/C ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

ALPHA 11.974  
 BETA -7.860  
 11.993 -3.842  
 12.035 .179  
 12.027 4.242  
 12.061 8.297  
 GRADIENT .59670  
 - .00010

MACH .59620  
 .59670  
 .53980  
 .53560  
 .54150  
 .54970  
 .00021

CLU .54540  
 .53980  
 .53560  
 .54150  
 .54970  
 .00021

CDU .12830  
 .13120  
 .13200  
 .2950  
 .12820  
 -.00021

CLMU .02320  
 .02830  
 .02820  
 .01920  
 .01400  
 -.00113

CAU .01240  
 .01620  
 .01740  
 .01380  
 .01050  
 -.00030

CNU .56010  
 .55530  
 .55140  
 .55650  
 .56430  
 .00015

CY .05680  
 -.01330  
 -.07860  
 -.13960  
 -.20860  
 -.01562

CBL .04860  
 .01780  
 .02280  
 .02590  
 .03240  
 -.00245

RUDDER = -10.000  
 BOFLAP = -11.700  
 ELVN-R = -10.000

SPOBRK = .000  
 ELVN-L = 10.000  
 MACH = .600

## PARAMETRIC DATA

(REB080) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

ALPHA -3.955  
 BETA .178  
 GRADIENT 1.39290  
 .00000

CLU -.21090  
 .00000  
 .18310  
 .00000

CLMU .06210  
 .00000  
 -.22300  
 .00000

CAU .16810  
 .00000  
 .00000  
 .00000

CNU -.01370  
 .00000  
 .02930  
 .00000

CY .02930  
 .00000  
 .00000  
 .00000

CBL -.01590  
 .00000  
 .00000  
 .00000

RUDDER = 10.000  
 BOFLAP = -11.700  
 ELVN-R = 10.000

SPOBRK = .000  
 ELVN-L = -10.000  
 MACH = 1.400

## PARAMETRIC DATA

(REB081) ( 12 AUG 75 )

ALPHA .028  
 BETA .177  
 GRADIENT 1.38940  
 .00000

CLU -.00890  
 .00000  
 .16390  
 .00000

CLMU .02060  
 .00000  
 -.00890  
 .00000

CAU .16390  
 .00000  
 .00000  
 .00000

CNU -.01090  
 .00000  
 .02420  
 .00000

CY .02420  
 .00000  
 .00000  
 .00000

CBL -.01440  
 .00000  
 .00000  
 .00000

MACH 1.39170  
 1.39290  
 1.39060  
 -.00014

CLU .18530  
 .18620  
 .19230  
 .00086

CLMU -.01480  
 -.01270  
 -.01700  
 -.00027

CAU .15790  
 .15830  
 .15580  
 -.00026

CNU .19670  
 .19770  
 .20350  
 .00084

CY .08480  
 .01940  
 -.04440  
 -.01592

CBL -.00880  
 -.01410  
 -.01970  
 -.00331

RUDDER = 10.000  
 BOFLAP = -11.700  
 ELVN-R = 10.000

SPOBRK = .000  
 ELVN-L = -10.000  
 MACH = 1.400

PARAMETRIC DATA

(REB081) ( 12 AUG 75 )

**DATE 08 MAY 76**

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(OA148) -140A/B:C ORBITER

(RE8081) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP	=	1076.6800	IN.	X0
YMRP	=	.0000	IN.	Y0
ZMRP	=	375.0000	IN.	Z0

RUDDER =	10.000	SPDRBK =	.000
BOFLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	1.400

## PARAMETRIC DATA

RUN NO. 452/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RUN NO.	453/ 0	RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA	BETA	HACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.905	-3.868	1.39060	.55730	.26490	-.06450	.60000	.14420	.08080	-.00500	-.01010
11.888	.169	1.39020	.26520	.26530	-.06500	.60470	.14380	.02040	-.00590	-.01570
11.887	4.249	1.35020	.56470	.26540	.06570	.60720	.14340	-.04650	-.00560	-.01960
	GRADIENT	-.00005	.00091	.00006	-.00015	.00089	-.00010	-.01568	-.00007	-.00117

RUN NO. 454/ 0    RN/L = 2.91    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

**AMES 11-073(0A148) -140A/B/C ORBITER**

(REB082) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP	=	1076.6800	IN.	X0
YMRP	=	.0000	IN.	Y0
ZMRP	=	375.0000	IN.	Z0

RUDDER =	10.000	SPOBRK =	.020
BOFLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	1.250

### PARAMETRIC DATA

RUN NO.	455/ 0	RM/L = 3.03	GRADIENT INTERVAL = -5.00/ 5.00
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[illegible]

RUN NO. 456/ 0 RM/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REB082) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XPRP = 1076.6800 IN. XO  
 YPRP = .0000 IN. YO  
 ZPRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 457/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.910	-3.830	1.24570	.19120	.17690	-.00380	.20280	.16350	.09510	-.01460	-.01270
3.950	.192	1.24470	.13430	.17740	-.00430	.20610	.16360	.02680	-.01130	-.01840
3.915	4.246	1.24570	.20400	.17550	-.01020	.21950	.16120	-.03920	-.03930	-.02360
	GRADIENT	-.00000	.00157	-.00017	-.00079	.00156	-.00028	-.01653	.03065	-.00137

RUN NO. 458/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
7.875	.170	1.24570	.40440	.21280	-.03600	.42970	.15540	.02670	-.01000	-.01910
	GRADIENT	.00000	.00000	.00000	.00000	.00300	.00000	.00000	.00000	.00000

RUN NO. 459/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.893	-3.862	1.24600	.59530	.27900	-.05470	.64010	.15030	.09460	-.00880	-.01030
11.948	.178	1.24600	.60840	.28120	-.05820	.65350	.14910	.02350	-.00880	-.01840
11.969	4.251	1.24470	.61280	.28280	-.06070	.65620	.14960	-.03740	-.00870	-.02660
	GRADIENT	-.00016	.00216	.00047	-.00074	.00223	-.00009	-.01504	.00001	-.00201

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XPRP = 1076.6800 IN. XO  
 YPRP = .0000 IN. YO  
 ZPRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 460/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.543	.171	1.09920	-.30840	.18580	.10900	-.32050	.16420	.04880	-.02150	-.02710
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 461/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.065	.171	1.09800	-.05190	.16120	.06230	-.05180	.16120	.04700	-.02020	-.02520
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 11-073(0A148) -140A/B/C ORBITER

(REB083) ( 12 AUG 75 )

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RE8063) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = -.000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.100

RUN NO. 462/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
3.859	-3.876	1.09760	.19280	.17740	.01450	.20430	.16400	.11100	-.02350	-.01400
3.908	.189	1.09300	.19580	.17320	.01690	.20730	.16150	.04190	-.01760	-.02250
3.913	4.243	1.09880	.20430	.17450	.01080	.21570	.16010	-.02630	-.01310	-.03000
	GRADIENT	.00015	.00142	-.00036	-.00046	.00140	-.00048	-.01698	.00128	-.00197

RUN NO. 463/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
8.023	.173	1.05720	.41620	.21710	-.01510	.44240	.15690	.03790	-.01610	-.02300
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 464/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
11.866	-.856	1.09600	.61500	.28680	-.03330	.66090	.15400	.09200	-.01510	-.01160
11.964	.112	1.09540	.62140	.28850	-.03430	.66770	.15340	.02560	-.01000	-.02200
11.963	4.251	1.09800	.62420	.28630	-.03480	.67000	.15070	-.03670	-.00750	-.03060
	GRADIENT	.00025	.00113	-.00006	-.00018	.00112	-.00041	-.01588	.00094	-.00234

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = -.000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 465/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
-3.535	.165	.89930	-.32580	.12070	.08970	-.33340	.09790	.05160	-.01920	-.03170
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 466/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CEL
.057	.165	.89770	-.08560	.09820	.06870	-.06550	.09820	.05200	-.01930	-.02910
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

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 ORIGINAL PAGE IS POOR

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RE8084) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 467/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
3.888	-3.885	.89790	.14670	.10260	.03900	.15330	.09240	.13110	-.02680	-.02100
4.092	.164	.89770	.15500	.10560	.04270	.16220	.09430	.05220	-.01870	-.02870
3.996	4.248	.89950	.16460	.10360	.03790	.17140	.09190	-.02340	-.01190	-.03390
	GRADIENT	.00007	.00220	.00012	-.00014	.00223	-.00006	-.01900	.00183	-.00159

RUN NO. 468/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
8.008	.163	.89820	.36980	.14280	.02140	.38610	.08990	.04350	-.01680	-.02350
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 469/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
11.969	.169	.89670	.55150	.21040	.01440	.58310	.09140	.03370	-.01520	-.02160
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .600

RUN NO. 470/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
-3.903	.164	.59620	-.24480	.08630	.04410	-.25010	.06940	.05640	-.02050	-.02760
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 471/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
.072	.163	.59620	-.05820	.07490	.04000	-.05810	.07490	.05860	-.02070	-.02690
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 11-073(0A148) -140A/B/C ORBITER

(RE8085) ( 12 AUG 75 )

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(REB085) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = 10.000 SPDRK = .000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BOFLAP = -11.700 ELVN-L = -10.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = .600  
 SCALE = .0300

## PARAMETRIC DATA

RUN NO. 472/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
4.077	.160	.59680	.12560	.07670	.03940	.13070	.06760	.06170	-.02070	-.02840
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 473/ 0 RN/L = 4.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
8.047	.158	.59710	.32030	.09270	.03650	.33010	.04700	.06260	-.02020	-.03080
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 474/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	MACH	CLU	CDU	CLMU	CNU	CAU	CY	CYN	CBL
12.046	.156	.59710	.52350	.13400	.03500	.54000	.02170	.05780	-.01770	-.03070
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = .000 SPDRK = 55.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BOFLAP = 16.300 ELVN-L = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = .000 MACH = 1.400  
 SCALE = .0300

## PARAMETRIC DATA

RUN NO. 32/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
-4.099	-3.881	-1.01910	.76010	.09230	.01900	.11130	-.19440	-.37440	-.37230
-4.089	.154	-1.02880	.76550	.10090	.01680	.11770	-.20050	-.37490	-.36650
-4.099	4.236	-1.02790	.75960	.11030	.01620	.12640	-.19250	3.44620	-.36470
GRADIENT	.00108	-.00006	-.00022	.00034	.00186	.00024	.00024	.47162	.00094

RUN NO. 33/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
-0.076	-3.908	.00470	-12.57300	.06060	.00490	.05570	-.21950	-.36190	-.35660
-.071	.147	-.00030	32.63800	.06870	-.00810	.06060	-.22270	-.36210	-.35490
-.058	4.215	.00040	74.67300	.07700	-.01000	.06710	-.21990	-.36300	-.35840
GRADIENT	-.00053	10.76502	.00202	.00063	.00140	-.00005	-.00005	-.00014	-.00022

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX01) ( 03 FEB 76 )

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX01) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 34/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
3.825	-3.904	1.05810	.67930	.02600	-.02150	.00450	-.25420	-.35460	-.34420
3.826	.146	1.03990	.67400	.03130	-.02730	.00400	-.25020	-.34400	-.33470
3.827	4.205	1.03410	.67890	.03970	-.02920	.01050	-.25500	-.35360	-.34650
	GRADIENT	-.00296	-.00005	.00169	-.00095	.00074	-.00010	.00012	-.00028

RUN NO. 35/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
7.859	-3.903	1.74100	.68990	-.00490	-.03930	-.04420	-.29610	-.36930	-.36450
7.859	.143	1.71740	.68850	.00050	-.04190	-.04140	-.29000	-.35640	-.34640
7.859	4.207	1.74070	.69220	.00540	-.04700	-.04150	-.29490	-.36050	-.34920
	GRADIENT	-.00003	.00028	.00127	-.00095	.00033	.00015	.00108	.00188

RUN NO. 58/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
11.904	-3.884	1.98030	.69200	-.05310	-.06090	-.11400	-.32860	-.37370	-.36760
11.913	.151	1.98190	.69200	-.04910	-.05790	-.10690	-.32980	-.37680	-.36410
11.909	4.219	1.97930	.69200	-.05400	-.05700	-.11100	-.33080	-.38160	-.35860
	GRADIENT	-.00012	.00000	-.00011	.00048	.00037	-.00027	-.00098	.00111

RUN NO. 59/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
15.872	-3.862	1.97200	.69030	-.10150	-.07610	-.17760	-.36160	-.39460	-.39070
15.886	.149	1.97320	.69150	-.09990	-.07450	-.17440	-.36580	-.39660	-.38450
15.901	4.249	1.96190	.69040	-.09490	-.07300	-.16790	-.36630	-.39830	-.37970
	GRADIENT	-.00125	.00001	.00082	.00038	.00120	-.00058	-.00046	.00135



TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 38/ 0 RVN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHF	CP196	CP197
-3.888	-1.19080	.78130	.08870	.04080	.12940	-.20340	-.41090	-.40850
.154	-1.21270	.78530	.09860	.03790	.13640	-.20750	-.39550	-.39160
4.234	-1.18770	.78070	.10750	.03460	.14210	-.20230	-.39500	-.39240
GRADIENT	.00039	-.00008	.00231	-.00076	.00156	.00014	.00183	.00198

RUN NO. 39/ 0 RVN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHF	CP196	CP197
-3.909	-.00800	8.38800	.06370	.01200	.07570	-.22800	-.39400	-.38860
.147	-.02680	3.34750	.07410	.00210	.07620	-.22830	-.38310	-.37600
4.211	-.02480	3.30030	.08220	-.00400	.07820	-.22920	-.39110	-.38600
GRADIENT	-.00207	-.62637	.00228	-.00197	.00031	-.00015	.00036	.00032

RUN NO. 40/ 0 RVN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHF	CP196	CP197
-3.910	1.10070	.66680	.03710	-.01060	.02650	-.26260	-.39220	-.38740
.139	1.07980	.66410	.04380	-.01670	.02710	-.26160	-.39110	-.38370
4.204	1.08160	.66870	.05410	-.02130	.03290	-.26520	-.38950	-.38320
GRADIENT	-.00235	.00023	.00210	-.00132	.00079	-.00032	.00033	.00052

RUN NO. 41/ 0 RVN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHF	CP196	CP197
-3.905	1.79760	.68600	.00410	-.03310	-.02900	-.30040	-.41050	-.40910
.143	1.76530	.68460	.01950	-.03870	-.01920	-.29960	-.40720	-.39820
4.209	1.76770	.68570	.02680	-.04070	-.01390	-.30330	-.40880	-.39970
GRADIENT	-.00368	-.00004	.00280	-.00094	.00186	-.00036	.00021	.00116

RUN NO. 42/ 0 RVN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHF	CP196	CP197
-3.887	2.04320	.68630	-.02900	-.06180	-.09080	-.33220	-.42700	-.42380
.148	2.04090	.68560	-.02310	-.05550	-.07860	-.33280	-.42770	-.42110
4.215	2.03270	.68620	-.02390	-.05510	-.07910	-.33740	-.42590	-.41680
GRADIENT	-.00130	-.00001	.00063	.00083	.00144	-.00064	.00014	.00086

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX03) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RUN NO. 43/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.048	-3.881	-1.40240	.77480	.07150	.03270	.10420	-.22280	-.43260	-.42670
-4.035	.153	-1.41200	.77370	.07410	.03350	.10760	-.23470	-.42480	-.42250
-4.044	4.236	-1.40390	.77200	.07760	.04330	.12080	-.22820	-.43070	-.43130
	GRADIENT	-.00018	-.00035	.00075	.00131	.00205	-.00066	.00023	-.00057

RUN NO. 44/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-0.027	-3.903	-1.16300	1.53870	.05350	.04420	.09770	-.24090	-.42840	-.41710
-0.023	.144	-1.13840	1.41060	.05970	.04080	.10050	-.24750	-.42590	-.41800
-0.029	4.209	-1.11440	1.45470	.06450	.03070	.09520	-.24390	-.42030	-.41950
	GRADIENT	-.00107	-.01034	.00136	-.00166	-.00031	-.00037	.00100	-.00030

RUN NO. 45/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.893	-3.902	1.16300	.65130	.04180	.01480	.05660	-.26360	-.43390	-.42530
3.894	.147	1.15040	.64940	.05410	.00880	.06290	-.27050	-.43850	-.43550
3.895	4.201	1.15540	.65580	.06570	.00310	.06870	-.26970	-.43090	-.43150
	GRADIENT	-.00094	.00056	.00295	-.00144	.00149	-.00075	.00037	-.00076

RUN NO. 46/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.886	-3.898	1.80950	.67140	.02740	-.02000	.00740	-.29740	-.46380	-.45940
7.886	.144	1.81780	.67400	.04690	.02350	.02340	-.29900	-.45690	-.45200
7.886	4.200	1.79750	.67350	.05790	-.02350	.03440	-.30180	-.46120	-.45470
	GRADIENT	-.00148	.00026	.00377	-.00043	.00333	-.00034	.00032	.00058

RUN NO. 47/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.930	-3.881	2.04630	.67390	-.02060	-.05316	-.07360	-.32450	-.47520	-.46600
11.997	.149	2.06550	.67460	-.00840	-.05090	-.05940	-.32360	-.45980	-.45190
11.992	4.212	2.04030	.67440	.00140	-.05070	-.04930	-.33120	-.46990	-.46070
	GRADIENT	-.00075	.00006	.00272	.00030	.00300	-.00083	.00065	.00065

DATE 08 MAY 76

TABULATED FORCE DATA - QAI48 ( ANES 11-073-1 )

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ANES 11-073(0A148) -140A/B/C/R ORBITER

(REBX04) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 555.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RUN NO. 48/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHTOT	CHBF	CP196	CP197
-4.058	-3.880	-2.11340	.70920	.01450	.01910	.03350	-.16550	-.33150	-.35230
-4.036	.153	-2.13010	.71290	.03300	.02770	.06070	-.17130	-.33470	-.34710
-4.047	4.237	-2.13990	.70430	.04320	.02970	.07300	-.16600	-.34000	-.31940
	GRADIENT	-.00326	-.00061	.00353	.00130	.00486	-.00006	-.00105	.00406

RUN NO. 49/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHTOT	CHBF	CP196	CP197
-0.25	-3.907	-2.0850	1.03030	.02290	.02320	.04600	-.16810	-.32610	-.34390
-0.020	.144	-2.2570	1.10360	.03830	.02610	.06440	-.16630	-.31290	-.31610
-0.027	4.215	-2.0870	1.04880	.04860	.02760	.07620	-.16810	-.33560	-.33110
	GRADIENT	-.00002	-.00512	.00316	.00054	.00372	-.00000	-.00117	.00157

RUN NO. 50/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHTOT	CHBF	CP196	CP197
3.898	-3.912	1.62680	.62100	.03550	.02650	.06200	-.17360	-.31630	-.33130
3.896	.152	1.57410	.60890	.04840	.02640	.07480	-.16880	-.31290	-.31820
3.899	4.208	1.63230	.62200	.05800	.02750	.08550	-.16980	-.31260	-.32060
	GRADIENT	.00067	.00012	.00277	.00012	.00289	.00047	.00046	.00132

RUN NO. 51/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHTOT	CHBF	CP196	CP197
7.895	-3.903	2.47640	.64490	.03890	.00890	.04780	-.17660	-.30240	-.30650
7.900	.140	2.48840	.64560	.05230	.00940	.06170	-.17330	-.30070	-.30870
7.897	4.209	2.49870	.64720	.06030	.01040	.07070	-.17580	-.29750	-.31100
	GRADIENT	.00275	.00028	.00264	.00018	.00282	.00010	.00060	-.00055

RUN NO. 52/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHTOT	CHBF	CP196	CP197
11.995	-3.890	2.55250	.65160	.02280	-.01340	.00930	-.18060	-.32340	-.32760
11.993	.152	2.56260	.65030	.02850	-.01400	.01450	-.17530	-.29850	-.30130
11.982	4.222	2.53330	.65190	.04170	-.01160	.03010	-.17990	-.32050	-.28330
	GRADIENT	-.00237	.60004	.00233	.00022	.00257	.00008	.00035	.00546

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX05) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDER =  
 80FLAP =  
 ELVN-R =

PARAMETRIC DATA  
 .000 SPOBRK = 55.000  
 16.300 ELVN-L = .000  
 .000 MACH = .600

RUN NO. 53/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.996	-7.893	-2.07270	.67870	.02830	.01840	.04670	-.12160	-.28970	-.31070
-3.981	-3.877	-2.07970	.68680	.03140	.01990	.05140	-.12270	-.27970	-.31020
-3.973	.156	-2.08610	.69120	.03650	.02140	.05790	-.12530	-.29640	-.31180
-3.981	4.231	-2.10090	.68330	.04110	.02310	.06420	-.12240	-.29230	-.29480
-3.995	8.308	-2.08380	.67720	.04610	.02470	.07070	-.11980	-.28040	-.28970
GRADIENT		-.00262	-.00043	.00120	.00039	.00158	.00004	-.00155	.00190

RUN NO. 54/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-.001	-7.930	-.07610	1.44580	.02810	.01890	.04700	-.12750	-.29150	-.31100
.008	-3.896	-.15100	1.17120	.03230	.01940	.05160	-.12440	-.28760	-.30410
.009	.144	-.22250	1.06120	.03700	.01950	.05640	-.12360	-.28610	-.29330
.008	4.214	-.16270	1.08540	.04180	.01970	.06150	-.12440	-.28450	-.27960
.003	8.269	-.03050	2.35930	.04610	.02000	.06610	-.12530	-.28910	-.30240
GRADIENT		-.00142	-.01056	.00117	.00004	.00122	-.00000	.00038	.00302

RUN NO. 55/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.907	-7.936	1.92500	.62380	.02680	.01550	.04230	-.13190	-.29520	-.30910
3.912	-3.897	1.85870	.61580	.03160	.01540	.04700	-.12990	-.28390	-.30510
3.909	.143	1.75120	.60370	.03700	.01580	.05270	-.12540	-.27280	-.27460
3.918	4.207	1.86080	.61950	.04210	.01510	.05730	-.12910	-.29020	-.29860
3.922	8.252	2.06890	.63020	.04620	.01470	.06090	-.13060	-.27840	-.29260
GRADIENT		.00029	.00046	.00130	-.00004	.00127	.00010	-.00078	.00080

RUN NO. 56/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.956	-7.918	3.43540	.64200	.02100	.00830	.02930	-.13610	-.29660	-.30850
7.955	-3.894	3.33290	.63690	.02510	.00580	.03090	-.13320	-.28130	-.28300
7.970	.145	3.32600	.63340	.03060	.00460	.03530	-.12850	-.26710	-.25580
7.969	4.201	3.36330	.63960	.03710	.00390	.04100	-.12740	-.27540	-.27490
7.967	8.254	3.52100	.64370	.04190	.00400	.04600	-.13620	-.26780	-.29250
GRADIENT		.00376	.00033	.00148	-.00023	.00125	.00009	.00073	.00100

AMES 11-07310A148) -140A/B/C/R ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XPRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YPRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 57/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP195	CP197
12.002	-7.881	3.86230	.64830	.00770	-.00260	.00520	-.14070	-.29550	-.30260
12.020	-3.874	3.77140	.64240	.01450	-.00390	.01060	-.13600	-.26960	-.26800
12.028	.150	3.74000	.63910	.02020	-.00440	.01580	-.13510	-.26790	-.26350
12.028	4.211	3.79720	.64430	.02490	-.00830	.01670	-.13700	-.26470	-.25740
12.020	8.278	3.88430	.65020	.02960	-.01310	.01650	-.14160	-.27890	-.27780
	GRADIENT	.00321	.00024	.00129	-.00054	.00075	-.00012	.00060	.00131

RUDER = .000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

PARAMETRIC DATA

AMES 11-07310A148) -140A/B/C/R ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XPRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YPRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 60/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
-4.026	-7.883	-1.76420	.64930	.02740	.02070	.04810	-.18400	-.31360	-.33330
-4.010	-3.877	-1.77680	.66120	.03080	.02230	.05300	-.18640	-.30190	-.32950
-3.994	.154	-1.79920	.66600	.03550	.02390	.05940	-.18970	-.31860	-.32740
-4.001	4.235	-1.79450	.65750	.04060	.02550	.06610	-.18450	-.31060	-.31850
-4.013	8.308	-1.78440	.64830	.04550	.02700	.07250	-.18090	-.29930	-.30790
	GRADIENT	-.00217	-.00046	.00121	.00039	.00161	.00024	-.00107	.00136

RUDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 61/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
.023	-7.929	.18450	.68140	.02740	.02100	.04840	-.19300	-.30950	-.32980
.033	-3.896	.08620	.47420	.03190	.02160	.05350	-.19020	-.30720	-.32790
.035	.147	.02010	-.71370	.03620	.02180	.05800	-.18760	-.30780	-.31130
.050	4.214	.08580	.55660	.04130	.02200	.06330	-.19060	-.30790	-.30870
.045	8.260	.22100	.70390	.04600	.02220	.06820	-.19110	-.31090	-.30750
	GRADIENT	-.00003	.01045	.00116	.00005	.00121	-.00005	-.00009	.00237

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) - 140A/B/C/R ORBITER

(REBX06) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RUN NO. 62/ 0 RN/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
3.911	-7.932	2.00190	.0380	.02600	.01750	.04350	-1.19780	-3.14000	-3.1610
3.915	-3.897	1.93440	.64760	.03090	.01740	.04830	-1.19520	-3.0870	-3.2020
3.912	.150	1.84550	.64020	.03630	.01800	.05430	-1.19180	-2.9490	-3.0230
3.921	4.204	1.93160	.65120	.04120	.01760	.05880	-1.19590	-3.1170	-3.1050
3.925	8.248	2.13080	.65820	.04630	.01680	.06310	-1.19720	-2.9570	-3.0880
	GRADIENT	-.00034	.00045	.00127	.00002	.00130	-.00009	-.00037	-.00120

RUN NO. 63/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
7.957	-7.908	3.34660	.65590	.01950	.01030	.02980	-2.20330	-3.2120	-3.3310
7.966	-3.891	3.26460	.65210	.02400	.00750	.03150	-1.19920	-2.9350	-2.9550
7.972	.143	3.27750	.64970	.02980	.00600	.03570	-1.19640	-2.7700	-2.8580
7.971	4.201	3.30270	.65430	.03660	.00590	.04250	-2.20040	-3.0250	-3.0270
7.969	8.255	3.45800	.65650	.04160	.00560	.04730	-2.20490	-2.9940	-3.0560
	GRADIENT	.00471	.00027	.00156	-.00020	.00136	-.00015	-.00112	-.00089

RUN NO. 64/ 0 RN/L = 3.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
12.008	-7.872	3.73720	.65710	.00530	-.00150	.00380	-2.20630	-3.0780	-3.1930
12.030	-3.872	3.66800	.65230	.01260	-.00220	.01040	-2.20330	-2.9440	-2.9950
12.036	.140	3.63370	.64920	.01710	-.00230	.01480	-2.20280	-2.9020	-2.7920
11.949	4.211	3.71620	.65440	.00000	.00000	.00000	.00000	-2.7270	-2.7570
12.026	8.275	3.78160	.65910	.02870	-.01050	.01830	-2.20920	-2.9600	-2.9670
	GRADIENT	.00600	.00026	-.00157	.00027	-.00129	.02521	.00269	.00259

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(REBX07) ( 06 MAY 76 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-4.068	-3.876	-1.89100	.68690	.01180	.02200	.03390	-.24320	-.36430	-.37310
-4.048	.153	-1.88730	.69270	.02700	.03010	.05700	-.25330	-.36380	-.36570
-4.057	4.237	-1.90030	.68470	.03870	.03170	.07040	-.24540	-.35950	-.34870
	GRADIENT	-.00115	-.00052	.00331	.00119	.00450	.00035	.00059	.00301

RUN NO. 0/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.010	-3.903	-.02170	2.09590	.02030	.02480	.04510	-.25090	-.34810	-.36110
.014	.148	-.03970	1.66510	.03430	.02770	.05200	-.24880	-.34180	-.34740
.013	4.211	-.00190	14.95500	.04510	.02970	.07480	-.25140	-.36100	-.34420
	GRADIENT	.00244	1.58572	.00306	.00060	.00365	-.00006	-.00159	.00208

RUN NO. 0/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.998	-3.905	1.67630	.65110	.03180	.02500	.05690	-.25720	-.34020	-.33160
4.002	.135	1.63880	.64310	.04380	.02770	.07150	-.25360	-.33180	-.34450
3.920	4.206	1.69080	.65390	.05410	.02680	.08090	-.25720	-.34820	-.34150
	GRADIENT	.00180	.00035	.00275	.00022	.00296	-.00000	-.00099	-.00122

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.946	-3.900	2.43370	.66070	.03300	.00910	.04210	-.26550	-.33600	-.34310
7.956	.143	2.47770	.66080	.04460	.00950	.05400	-.26200	-.33790	-.34580
7.955	4.206	2.48800	.66320	.05310	.01130	.06440	-.26360	-.35870	-.34390
	GRADIENT	.00670	.00031	.00248	.00027	.00275	.00023	-.00280	-.00010

RUN NO. 0/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.987	-3.885	2.49010	.66410	.01020	-.01280	-.00260	-.27600	-.35470	-.36210
11.997	.148	2.51430	.66210	.02180	-.01380	.00800	-.27190	-.33860	-.35270
11.987	4.223	2.46250	.66470	.03190	-.01070	.02120	-.27910	-.35950	-.33780
	GRADIENT	-.00342	.00007	.00268	.00026	.00294	-.00038	-.00048	.00300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C/R ORBITER

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 (REBX08) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 71/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-4.017	-3.884	.91730	.7930	.09460	.01960	.11420	-.23520	-.37520	-.37860
-3.966	.155	-.92030	.8050	.10400	.01730	.12130	-.24470	-.37970	-.37530
-4.012	4.241	-.91910	.80050	.11410	.01690	.13090	-.23460	-.37530	-.37010
	GRADIENT	-.00022	.00015	.00240	-.00033	.00206	.00008	-.00001	-.00105

RUN NO. 72/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-.007	-3.899	.03620	2.93550	.06210	-.00370	.05840	-.26150	-.38210	-.37860
-.001	.155	-.04090	2.78730	.07070	-.00700	.06370	-.26530	-.37930	-.37160
-.005	4.218	-.02710	3.63370	.07950	-.00950	.07010	-.26400	-.37830	-.37710
	GRADIENT	.00112	.08607	.00214	-.00071	.00144	-.00031	.00047	.00018

RUN NO. 73/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.849	-3.909	.85050	.63500	.02660	-.02050	.00610	-.20820	-.37150	-.36890
3.967	.154	.86230	.63150	.03210	-.02640	.00560	-.29730	-.36220	-.35590
3.885	4.208	.86920	.63820	.04000	-.02910	.01100	-.30470	-.37680	-.36360
	GRADIENT	.00230	.00039	.00165	-.00106	.00060	-.00080	-.00065	.00065

RUN NO. 74/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.868	-3.901	1.50550	.67100	-.00640	-.03900	-.04540	-.34450	-.38020	-.37260
7.941	.144	1.49240	.67010	-.00120	-.04130	-.04240	-.34110	-.37700	-.36570
7.942	4.207	1.51270	.67340	.00350	-.04790	-.04440	-.34620	-.37690	-.36660
	GRADIENT	.00089	.00030	.00122	-.00110	.00012	-.00021	.00041	.00173

RUN NO. 75/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.890	-3.888	1.79040	.68100	-.05520	-.05820	-.11340	-.38400	-.38900	-.37670
11.897	.146	.78310	.68110	-.04810	-.05650	-.10450	-.38540	-.39060	-.37820
11.893	4.224	1.77360	.68170	-.04750	-.05530	-.10280	-.38880	-.40720	-.36630
	GRADIENT	-.00207	.00009	.00095	.00036	.00131	-.00059	-.00225	-.00118



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TABULATED FORCE DATA - 0A148 ( AVES 11-073-1 )

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AVES 11-073(0A148) -140A/B/C/R ORBITER

(REBX08) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YHRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZHRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER =  
 BOFLAP =  
 ELVN-R =

SPOBRK = 85.000  
 ELVN-L = .000  
 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 76/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ALPHA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
BETA	-3.863	15.905	1.82530	.68280	-.10340	-.07360	-.17700	-.42220	-.40850	-.39460
ALPHA	.144	15.918	1.82100	.68360	-.10190	-.07310	-.17500	-.42370	-.40960	-.39710
LU/DU	4.250	15.908	1.81490	.68330	-.09580	-.07160	-.16730	-.42640	-.40870	-.39470
XCP/L	GRADIENT		-.00128	.00006	.00094	.00025	.00120	-.00052	-.00002	-.00001

AVES 11-073(0A148) -140A/B/C/R ORBITER

(REBX09) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YHRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZHRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER =  
 BOFLAP =  
 ELVN-R =

SPOBRK = 85.000  
 ELVN-L = .000  
 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 77/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ALPHA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
BETA	-3.882	15.905	1.08530	.81270	.09120	.04260	.13380	-.24920	-.40580	-.40320
ALPHA	.155	15.917	1.10320	.81670	.10140	.04070	.14210	-.25330	-.39860	-.39520
LU/DU	4.236	15.908	1.08250	.81260	.11080	.03650	.14730	-.24650	-.40160	-.40000
XCP/L	GRADIENT		.00035	-.00001	.00241	-.00075	.00166	.00029	.00052	.00039

RUN NO. 78/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ALPHA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
BETA	-3.903	15.905	1.05120	2.62210	.06600	.01380	.07970	-.27720	-.41740	-.41860
ALPHA	.152	15.917	1.06260	2.32750	.07720	.00410	.08130	-.27950	-.40540	-.40560
LU/DU	4.217	15.908	1.04700	2.76890	.08520	-.00240	.08290	-.27950	-.41070	-.40660
XCP/L	GRADIENT		.00052	.01812	.00236	-.00199	.00039	-.00030	.00082	.00148

RUN NO. 79/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ALPHA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
BETA	-3.907	15.905	.91540	.63240	.03840	-.00270	.02970	-.31670	-.41390	-.41440
ALPHA	.148	15.917	.92150	.63660	.04610	-.01500	.03110	-.31790	-.41870	-.41230
LU/DU	4.207	15.908	.92880	.63630	.05520	-.02090	.03420	-.32160	-.41380	-.40440
XCP/L	GRADIENT		.00165	.00048	.00207	-.00150	.00055	-.00060	.00001	.00123



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX10) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 84/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.934	-3.903	1.02110	.63400	.04040	.01800	.05840	-.32040	-.45810	-.46580
3.940	.149	1.03800	.63690	.05230	.01060	.06290	-.32480	-.43990	-.44050
3.944	4.204	1.04830	.63960	.06420	.00480	.06900	-.32790	-.45520	-.44320
	GRADIENT	.00336	.00069	.00294	-.00163	.00131	-.00093	.00036	.00254

RUDDER = .000 SPOBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 85/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.882	-3.899	1.61820	.66110	.02830	-.01730	.01100	-.35320	-.48900	-.49500
7.887	.144	1.66540	.66620	.04390	-.02160	.02240	-.35610	-.47160	-.47460
7.888	4.206	1.64470	.66450	.05790	-.02200	.03580	-.36020	-.48560	-.47100
	GRADIENT	.00326	.00042	.00365	-.00058	.00306	-.00086	.00042	.00296

RUN NO. 86/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.921	-3.873	1.87170	.66720	-.01930	-.05090	-.07020	-.38520	-.49700	-.50190
11.930	.146	1.90100	.66980	-.01490	-.04850	-.06330	-.38950	-.49070	-.48740
11.928	4.214	1.88830	.66830	.00080	-.04740	-.04660	-.39020	-.49650	-.48880
	GRADIENT	.00204	.00013	.00249	.00043	.00292	-.00062	.00005	.00162

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX11) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 87/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.067	-3.873	-1.81210	.72350	.01680	.02480	.04160	-.22790	-.37240	-.38880
-4.047	.148	-1.79710	.72990	.03040	.02930	.05970	-.23430	-.37630	-.37840
-4.057	4.239	-1.80370	.72140	.04080	.03120	.07200	-.22510	-.38950	-.38620
	GRADIENT	.00103	-.00026	.00296	.00079	.00375	.00023	-.00211	.00007

RUDDER = .000 SPOBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

## PARAMETRIC DATA

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(R2BX11) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RUN NO. 88/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.016	-3.906	1.22970	1.10510	.02640	.02640	.05270	-.22890	-.38000	-.38590
.014	.139	1.25910	1.10220	.03550	.02750	.06390	-.22770	-.36200	-.37340
.024	4.220	1.22250	1.08970	.04610	.02930	.07540	-.23070	-.37570	-.36410
	GRADIENT	.00090	-.00190	.00242	.00035	.00279	-.00022	.00052	.00268

RUN NO. 89/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.936	-3.911	1.28200	.59940	.03460	.02800	.06260	-.23560	-.37530	-.39490
3.937	.151	1.23670	.58870	.04430	.02800	.07240	-.23200	-.37310	-.37860
3.940	4.207	1.32160	.60760	.05440	.02760	.08200	-.23520	-.35950	-.37260
	GRADIENT	.00487	.00103	.00244	-.00005	.00239	.00005	.00202	.00275

RUN NO. 90/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.890	-3.900	2.08990	.63810	.03410	.00880	.04290	-.24210	-.37730	-.38490
7.894	.145	2.08950	.63740	.04390	.01130	.05510	-.24090	-.36330	-.38620
7.892	4.207	2.11520	.64170	.05430	.01240	.06670	-.24270	-.36780	-.38480
	GRADIENT	.00312	.00044	.00249	.00044	.00294	-.00007	.00117	.00001

RUN NO. 91/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.932	-3.884	2.26040	.64900	.01370	-.01110	.00260	-.25060	-.38540	-.40430
11.939	.149	2.26800	.64680	.02630	-.01180	.01450	-.24790	-.37940	-.40310
11.928	4.228	2.24850	.64850	.03530	-.00880	.02650	-.25030	-.35210	-.38600
	GRADIENT	-.00147	-.00006	.00266	.00028	.00295	.00004	-.00083	.00226

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER =  
BOFLAP =  
ELVN-R =

PARAMETRIC DATA

.000 SPOBRK = 85.000  
22.500 ELVN-L = .000  
.000 MACH = .600

RUN NO. 92/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF
-4.057	-7.889	-1.63480	.68530	.02650	.02040	.04690	-1.7320
-4.036	-3.874	-1.63260	.69910	.03040	.02220	.05260	-1.7580
-4.017	.163	-1.63460	.70370	.03480	.02370	.05850	-1.7850
-4.026	4.234	-1.64610	.69620	.03990	.02560	.06550	-1.7520
-4.040	8.307	-1.62730	.68570	.04480	.02690	.07170	-1.7110
	GRADIENT	-1.00167	-1.00036	.00117	.00042	.00159	.00008

CP196  
-33940  
-34160  
-35710  
-35780  
-34590  
-1.00200

CP197  
-36970  
-37790  
-38730  
-37570  
-35670  
-1.00027

RUN NO. 93/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF
-4.057	-7.924	-1.63480	.68530	.02650	.02040	.04690	-1.7320
-4.036	-3.897	-1.63260	.69910	.03040	.02220	.05260	-1.7580
-4.017	.160	-1.63460	.70370	.03480	.02370	.05850	-1.7850
-4.026	4.215	-1.64610	.69620	.03990	.02560	.06550	-1.7520
-4.048	8.271	-1.62730	.68570	.04480	.02690	.07170	-1.7110
	GRADIENT	-1.00443	-1.05090	.00123	.00006	.00131	-1.00015

CP196  
-34290  
-33900  
-33330  
-35690  
-34570  
-1.00221

CP197  
-36790  
-37590  
-37240  
-36230  
-35720  
-1.00168

RUN NO. 94/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF
3.956	-7.937	1.56170	.61360	.02410	.01740	.04150	-1.8320
3.958	-3.898	1.47960	.60380	.02970	.01720	.04690	-1.8140
3.957	.162	1.41490	.59560	.03510	.01760	.05270	-1.7900
3.954	4.202	1.44000	.60830	.04060	.01720	.05780	-1.8250
3.960	8.252	1.63120	.62170	.04510	.01620	.06130	-1.8350
	GRADIENT	-1.00490	.00055	.00135	.00000	.00135	-1.00014

CP196  
-34510  
-33910  
-33510  
-34290  
-33910  
-1.00047

CP197  
-35960  
-36630  
-35410  
-36130  
-35800  
-1.00062

RUN NO. 95/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF
7.904	-7.922	2.74030	.62140	.01840	.01010	.02860	-1.8730
7.913	-3.891	2.70830	.63160	.02320	.00730	.03060	-1.8490
7.912	.160	2.63210	.62890	.02940	.00720	.03660	-1.8400
7.910	4.204	2.67460	.63460	.03590	.00570	.04260	-1.8680
7.909	8.256	2.81590	.63810	.04090	.00610	.04710	-1.8950
	GRADIENT	-1.00417	.00037	.00157	-1.00007	.00148	-1.00023

CP196  
-33950  
-32760  
-33110  
-34290  
-33910  
-1.00036

CP197  
-36270  
-34010  
-34510  
-34340  
-34840  
-1.00041

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX12) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RUN NO. 96/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.950	-7.879	3.27940	.64270	.00470	-.00080	.00390	-.19040	-.33370	-.36100
11.968	-3.671	3.21710	.63950	.01210	-.00190	.01020	-.18940	-.33890	-.37040
11.970	.156	3.18840	.63620	.01710	-.00160	.01540	-.18830	-.32130	-.34330
11.968	4.216	3.21850	.64170	.02410	-.00620	.01790	-.19160	-.31830	-.33740
11.959	8.279	3.36770	.64680	.02820	-.00930	.01890	-.19250	-.31620	-.33410
	GRADIENT	.00018	.00026	.00148	-.00053	.00095	-.00027	.00254	.00408

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX13) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 97/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-4.106	-3.886	-1.19690	.75310	.09550	.02000	.11550	-.03450	-.34320	-.34820
-4.030	.154	-1.19390	.75890	.10520	.01770	.12290	-.03320	-.34580	-.34070
-4.039	4.249	-1.18820	.75370	.11490	.01680	.13170	-.03490	-.34550	-.34250
	GRADIENT	.00107	.00007	.00238	-.00039	.00199	-.00005	-.00028	.00070

RUN NO. 98/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-.033	-3.905	-.05690	1.54380	.06300	-.00390	.05910	-.05040	-.33020	-.32940
-.028	.144	-.06990	1.48120	.07080	-.00730	.06350	-.04910	-.32450	-.31980
-.033	4.229	-.05650	1.53770	.07930	-.00930	.07010	-.05290	-.33470	-.32970
	GRADIENT	.00005	-.00073	.00200	-.00066	.00135	-.00031	-.00056	-.00004

RUN NO. 99/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.851	-3.904	1.11620	.67300	.02640	-.02130	.00520	-.06960	-.32530	-.32190
3.949	.141	1.12670	.66910	.03160	-.02660	.00500	-.06690	-.31580	-.30950
3.862	4.219	1.14130	.67500	.04030	-.02930	.01100	-.07050	-.32440	-.31430
	GRADIENT	.00309	.00025	.00171	-.00098	.00072	-.00011	.00011	.00093

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX13) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 100/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
7.881	-3.904	1.88750	.68460	-.00630	-.04020	-.04650	-.09100	-.33700	-.33870
7.933	.128	1.88510	.68280	-.00200	-.04210	-.04410	-.08650	-.32660	-.31740
7.934	4.214	1.90500	.68690	.00360	-.04800	-.04440	-.09090	-.33120	-.32110
	GRADIENT	.00216	.00028	.00122	-.00096	.00026	.00001	.00071	.00216

RUN NO. 101/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
11.884	-3.887	2.13820	.68700	-.05510	-.05910	-.11420	-.10970	-.34510	-.34580
11.891	.152	2.13620	.68630	-.04830	-.05710	-.10540	-.10980	-.34390	-.33740
11.887	4.229	2.12760	.68740	-.04750	-.05580	-.10330	-.11300	-.35390	-.34250
	GRADIENT	-.00131	.00005	.00094	.00041	.00134	-.00041	-.00109	.00040

RUN NO. 102/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
15.888	-3.863	2.09670	.68500	-.10460	-.07450	-.17920	-.12890	-.36270	-.37790
15.865	.152	2.09420	.68620	-.10250	-.07350	-.17600	-.13510	-.37330	-.35880
15.903	4.263	2.08390	.68540	-.09580	-.07180	-.16760	-.13490	-.37530	-.35990
	GRADIENT	-.00158	.00005	.00109	.00033	.00143	-.00074	-.06155	.00221

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 103/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
-4.010	-3.884	-1.40800	.77620	.09150	.04190	.13340	-.02850	-.37330	-.37390
-3.944	.148	-1.43300	.78010	.10150	.03930	.14080	-.02270	-.35710	-.35300
-4.009	4.237	-1.40500	.77520	.11120	.03600	.14730	-.02900	-.37110	-.36800
	GRADIENT	.00038	-.00013	.00243	-.00073	.00171	-.00007	.00026	.00072

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX14) ( 03 FEB 76 )

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 120

AMES 11-073(0A148) -140A/B C/R ORBITER

(REBX14) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 104/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.205	-3.866	-.03140	3.47510	.06620	-.01280	.07900	-.04680	-.35580	-.34700
.220	.185	-.03970	3.01860	.07710	.00330	.08040	-.04330	-.34910	-.34060
.215	4.264	-.02670	3.99710	.08510	-.00280	.08230	-.05010	-.36530	-.36000
	GRADIENT	.00058	.06441	.00232	-.00192	.00041	-.00041	-.00117	-.00160

RUN NO. 105/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.903	-3.872	1.17220	.65730	.03920	-.00850	.03060	-.06460	-.35410	-.34390
3.903	.184	1.14470	.65390	.04680	-.01430	.03260	-.06360	-.35070	-.34450
3.907	4.256	1.19030	.66190	.05680	-.02150	.03530	-.06850	-.36250	-.35650
	GRADIENT	.00223	.00057	.00217	-.00160	.00058	-.00048	-.00103	-.00155

RUN NO. 106/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.853	-3.870	1.95700	.67900	.00390	-.03190	-.02800	-.08350	-.37060	-.37390
7.959	.181	1.94430	.67740	.01970	-.03820	-.01850	-.08060	-.36090	-.35670
7.960	4.251	1.93630	.67870	.02680	-.04060	-.01380	-.08870	-.37570	-.36710
	GRADIENT	-.00255	-.00004	.00282	-.00107	.00175	-.00064	-.00063	.00083

RUN NO. 107/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.929	-3.853	2.19060	.67990	-.03120	-.06190	-.09320	-.09960	-.38890	-.39100
11.937	.177	2.20450	.67910	-.02620	-.05390	-.08010	-.10020	-.37840	-.37570
11.932	4.267	2.18810	.67970	-.02590	-.05310	-.07900	-.10210	-.37820	-.37280
	GRADIENT	-.00032	-.00002	.00065	.00108	.00175	-.00031	.00131	.00224



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX15) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RUN NO. 108/ 0 RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
-4.072	-3.851	-1.72700	.77170	.07500	.03430	.10930	-.03170	-.39020	-.37040
-4.070	.189	-1.77500	.77270	.08000	.11710	.10300	-.03090	-.37500	-.37090
-4.075	4.283	-1.68960	.76770	.07870	.04270	.12130	-.03510	-.39560	-.39780
	GRADIENT	.00463	-.00049	.00045	.00103	.00147	-.00042	-.00067	-.00338

RUN NO. 109/ 0 RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
-0.011	-3.863	-2.26470	1.13830	.05830	.04460	.10290	-.04420	-.37520	-.35880
-0.004	.183	-2.2100	1.10790	.06360	.04290	.10660	-.04310	-.36840	-.36280
-0.007	4.266	-2.24520	1.16170	.06940	.03310	.10250	-.04820	-.39160	-.39360
	GRADIENT	.00242	.00289	.00137	-.00142	-.00005	-.00049	-.00202	-.00429

RUN NO. 110/ 0 RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
3.931	3.870	1.22470	.63360	.04320	.01880	.08400	-.05370	-.39050	-.38120
3.932	.189	1.19730	.62440	.05880	.01420	.07300	-.05500	-.37930	-.37360
3.935	4.249	1.24600	.63890	.07050	.00590	.07350	-.05970	-.40430	-.40470
	GRADIENT	.00262	.00065	.00312	-.00159	.00154	-.00074	-.00170	-.00289

RUN NO. 111/ 0 RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
7.884	-3.855	1.97050	.66010	.02880	-.01830	.01050	-.06770	-.41730	-.41050
7.965	.179	2.00470	.66130	.04920	-.02210	.02700	-.06920	-.38000	-.37990
7.966	4.242	1.97660	.66260	.06020	-.02220	.03790	-.07350	-.40940	-.40510
	GRADIENT	.00075	.00031	.00387	-.00048	.00338	-.00072	.00097	.00066

RUN NO. 112/ 0 RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
11.925	-3.850	2.21030	.66500	-.01950	-.05220	-.07170	-.08320	-.41470	-.39830
11.933	.177	2.23900	.66670	-.05060	-.06310	-.08550	-.08550	-.40850	-.39440
11.928	4.259	2.20920	.66510	.00140	-.04900	-.04760	-.08470	-.41630	-.40630
	GRADIENT	-.00015	.00001	.00258	.00039	.00297	-.00018	-.00020	-.00099

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 122

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX16) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUDDER = .000 SPOBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

## PARAMETRIC DATA

RUN NO. 113/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0
-4.023	-3.852	-2.79900	.72850	.01960	.02000
-3.925	.188	-2.82430	.73500	.04910	.03170
-3.933	4.285	-2.78600	.72560	.05920	.03450
	GRADIENT	.00162	-.00036	.00486	.00178
					.00664
					.00020
					.00079
					.00203
					.00026
					.00140
					.00043
					.00004
					.00103
					.00022
					.00025

RUN NO. 114/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0
.017	-3.871	-6.1490	.97230	.03180	.02620
.043	.183	-6.3350	.99720	.05780	.03250
.037	4.263	-5.7870	.97950	.06730	.03350
	GRADIENT	.00445	.00088	.00436	.00090
					.00533
					.00013
					.00026
					.00140
					.00043
					.00004
					.00103
					.00022
					.00025

RUN NO. 115/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0
3.891	-3.877	1.65950	.56200	.05320	.03610
4.016	.188	1.64280	.54900	.07000	.03390
4.017	4.257	1.78560	.57620	.07860	.03210
	GRADIENT	.01551	.00175	.00312	-.00049
					.00264
					.00005
					.00043
					.00004
					.00103
					.00022
					.00025

RUN NO. 116/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0
7.978	-3.866	2.74130	.62280	.06140	.01230
7.924	.181	2.75730	.62080	.07630	.01110
7.921	4.257	2.81860	.62570	.08240	.01140
	GRADIENT	.00952	.00036	.00258	-.00011
					.00246
					.00020
					.00004
					.00103
					.00022
					.00025

RUN NO. 117/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0
11.916	-3.856	2.76510	.63690	.03720	-.01050
11.928	.182	2.76820	.63560	.04810	-.01210
11.917	4.273	2.76590	.63670	.05620	-.01040
	GRADIENT	-.00003	-.00002	.00234	.00001
					.00234
					.00016
					.00022
					.00025

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 123

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX17) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RUN NO. 118/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
-4.112	-7.854	-3.06780	.69660	.03760	.02130	.05890	-.04180	-.22680	-.23260
-4.086	-3.838	-3.01800	.70560	.04140	.02280	.06420	-.04200	-.22900	-.23160
-4.079	.201	-3.04630	.70940	.04700	.02440	.07140	-.03920	-.23700	-.23780
-4.086	4.270	-3.05950	.70250	.05140	.02620	.07770	-.04090	-.25240	-.23400
-4.101	8.352	-3.09530	.69660	.05660	.02780	.08440	-.04050	-.25960	-.24460
	GRADIENT	-.00512	-.00038	.00123	.00042	.00166	.00013	-.00289	-.00029

RUN NO. 119/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
.084	-7.892	-.56080	.93680	.03770	.02150	.05920	-.04330	-.23620	-.24030
.094	-3.858	-.63080	.94620	.04210	.02190	.06400	-.04030	-.22470	-.22560
.071	.198	-.70750	.93820	.04760	.02220	.06980	-.03840	-.23230	-.22860
.068	4.249	-.63370	.93500	.05200	.02250	.07450	-.03970	-.23260	-.23600
.061	8.308	-.51590	.95910	.05640	.02300	.07930	-.04050	-.25550	-.24160
	GRADIENT	-.00036	-.00138	.00122	.00007	.00130	.00007	-.00344	-.00128

RUN NO. 120/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
4.005	-7.903	2.21890	.58370	.03940	.01830	.05370	-.04320	-.24240	-.24010
4.010	-3.866	2.03510	.56710	.04140	.01800	.05950	-.04090	-.23290	-.22680
4.008	.197	1.89690	.54880	.04700	.01840	.06540	-.03770	-.23190	-.21650
4.011	4.242	2.05820	.57000	.05220	.01780	.07300	-.04020	-.23650	-.22310
4.014	8.290	2.37020	.58800	.05650	.01710	.07360	-.04200	-.24580	-.23990
	GRADIENT	.00282	.00035	.00133	-.00002	.00130	.00009	-.00044	.00046

RUN NO. 121/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHF	CP196	CP197
7.901	-7.891	4.03790	.62480	.03000	.01130	.04120	-.04980	-.24840	-.25040
7.913	-3.864	3.92260	.61760	.03440	.00810	.04250	-.04230	-.22670	-.21730
7.919	.190	3.88040	.61300	.04110	.00770	.04680	-.03960	-.23450	-.20780
7.918	4.240	3.98770	.62000	.04770	.00730	.05500	-.04170	-.23100	-.21950
7.914	8.294	4.15570	.62450	.05210	.00690	.05900	-.04690	-.26120	-.24400
	GRADIENT	.00803	.00030	.00164	-.00010	.00154	.00007	-.00028	-.00027

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX17) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 122/ 0 RVL = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.926	-7.855	4.41910	.63810	.01590	.00050	.01640	-.05530	-.24630	-.25460
11.949	-3.840	4.32480	.63130	.02410	-.00070	.02340	-.04870	-.22140	-.22510
11.954	.189	4.29930	.62740	.02910	-.00080	.02830	-.04620	-.22920	-.21040
11.952	4.253	4.38120	.63370	.03620	-.00550	.03060	-.04890	-.24650	-.22190
11.942	8.320	4.48360	.64010	.04020	-.00860	.03160	-.05520	-.27850	-.25390
	GRADIENT	.00699	.00030	.00150	-.00059	.00089	-.00003	-.00310	-.00039

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX18) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 123/ 0 RVL = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.050	-3.854	-1.24500	.74050	.09550	.01980	.11530	.03580	-.33270	-.33290
-4.042	.192	-1.24340	.74650	.10500	.01790	.12300	.03690	-.33780	-.33480
-4.051	4.285	-1.24500	.74090	.11490	.01710	.13200	.03560	-.33890	-.33390
	GRADIENT	-.00000	.00005	.00238	-.00033	.00205	-.00003	-.00076	-.00012

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 124/ 0 RVL = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-.030	-3.874	-.05490	1.38620	.06250	-.00360	.05880	.02850	-.32660	-.31540
-.025	.186	-.05840	1.44240	.07110	-.00710	.06400	.02990	-.31970	-.30980
-.030	4.265	-.05590	1.35240	.08050	-.00900	.07150	.02710	-.32720	-.31890
	GRADIENT	-.00012	-.00417	.00222	-.00066	.00156	-.00017	-.00008	-.00043

RUN NO. 125/ 0 RVL = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.919	-3.877	1.19810	.68030	.02690	-.02210	.00480	.01930	-.32050	-.31310
3.922	.185	1.19140	.67530	.03210	-.02610	.00600	.02110	-.31780	-.30550
3.923	4.255	1.18970	.68060	.04070	-.02930	.01130	.01860	-.32280	-.31470
	GRADIENT	-.00103	.00004	.00170	-.00089	.00080	-.00009	-.00028	-.00020

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX18) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUN NO. 126/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
7.792	-3.867	1.95780	.68620	-.00470	-.04010	-.04480	.00510	-.33220	-.31770
7.791	.182	1.93090	.68420	.00070	-.04230	-.04150	.00700	-.31940	-.30800
7.919	4.252	1.96880	.68860	.00500	-.04790	-.04290	.00440	-.32950	-.32610
	GRADIENT	.00136	.00030	.00119	-.00096	.00023	-.00009	.00033	-.00104

RUDDER =  
 BDFLAP =  
 ELVN-R =

.000 SPOBRK = .000  
 -11.700 ELVN-L = .000  
 .000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 127/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.807	-3.848	2.19320	.68710	-.05340	-.05760	-.11100	-.00670	-.33310	-.32100
11.815	.187	2.18710	.68610	-.04620	-.05580	-.10200	-.00550	-.34070	-.32920
11.810	4.268	2.18110	.68720	-.04450	-.05550	-.10000	-.00550	-.34610	-.33540
	GRADIENT	-.00149	.00001	.00110	.00026	.00135	.00015	-.00160	-.00177

RUN NO. 128/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
15.906	-3.833	2.14180	.68460	-.10360	-.07450	-.17810	-.01780	-.34870	-.35120
15.920	.184	2.13110	.68520	-.10290	-.07330	-.17620	-.02000	-.37150	-.35910
15.910	4.299	2.12350	.68510	-.09520	-.07150	-.16670	-.02240	-.37130	-.35590
	GRADIENT	-.00225	.00006	.00104	.00037	.00141	-.00057	-.00277	-.00057

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUN NO. 131/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.048	-3.848	-1.48670	.76610	.09250	.04220	.13470	.04780	-.35910	-.34760
-3.974	.192	-1.49520	.77050	.10230	.03980	.14200	.04850	-.34310	-.34180
-3.984	4.283	-1.46210	.76520	.11140	.03590	.14730	.04650	-.35460	-.35510
	GRADIENT	.00304	-.00011	.00232	-.00079	.00155	-.00016	.00055	-.03093

RUDDER =  
 BDFLAP =  
 ELVN-R =

.000 SPOBRK = .000  
 -11.700 ELVN-L = .000  
 .000 MACH = 1.250

## PARAMETRIC DATA

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX19) ( 03 FEB 76 )

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 126

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX19) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2620.0000 SO.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

## PARAMETRIC DATA

RUDER = .000 SPDRK = .000  
BOFLAP = -11.700 ELVN-L = .000  
ELVN-R = .000 MACH = 1.250

RUN NO. 129/ 0 RV/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
-0.51  
-0.07  
-0.013

BETA  
-3.861  
.182  
4.263  
GRADIENT

LU/DU  
-1.2670  
-1.1280  
-1.1770  
-0.0111

CHEI  
.06730  
.07780  
.08590  
.00241

XCP/L  
1.26270  
1.31030  
1.28950  
.00329

CHEO  
.01400  
.00450  
-0.0170  
-0.00193

CHETOT  
.08140  
.08230  
.08520  
.00047

CP196  
-35710  
-34310  
-34350  
.00104

CP197  
-33590  
-32990  
-34350  
-0.00785

RUN NO. 130/ 0 RV/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
3.859  
3.906  
3.928

BETA  
-3.873  
.178  
4.253  
GRADIENT

LU/DU  
1.22580  
1.21100  
1.21680  
-0.0110

CHEI  
.03860  
.04600  
.05730  
.00230

XCP/L  
.66190  
.65850  
.66490  
.00037

CHEO  
-0.00950  
-0.01510  
-0.02110  
-0.00143

CHETOT  
.02910  
.03090  
.03620  
.00087

CP196  
-35460  
-34420  
-35080  
0.00347

CP197  
-33860  
-33210  
-34730  
-0.00107

RUN NO. 132/ 0 RV/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
7.851  
7.971  
7.972

BETA  
-3.877  
.182  
4.253  
GRADIENT

LU/DU  
2.02620  
2.01140  
2.00960  
-0.00204

CHEI  
.00430  
.02040  
.02690  
.00278

XCP/L  
.67980  
.67760  
.67980  
.00000

CHEO  
-0.03230  
-0.03890  
-0.04100  
-0.00107

CHETOT  
-0.02800  
-0.01850  
-0.01410  
.00171

CP196  
-36210  
-34800  
-37800  
-0.00156

CP197  
-34820  
-34360  
-35770  
-0.00240

RUN NO. 133/ 0 RV/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
11.905  
11.915  
11.907

BETA  
-3.844  
.187  
4.259  
GRADIENT

LU/DU  
2.26190  
2.26120  
2.24130  
-0.00254

CHEI  
-0.3130  
-0.2510  
-0.0230  
.00116

XCP/L  
.67980  
.67900  
.67950  
-0.00002

CHEO  
-0.05190  
-0.05430  
-0.05300  
.00110

CHETOT  
-0.09330  
-0.07940  
-0.07490  
.00227

CP196  
-36620  
-36820  
-38310  
-0.00209

CP197  
-34720  
-36200  
-36920  
-0.00278

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
AMES 11-073(0A148) -140A/B/C/R ORBITTER

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(REBX20) ( 03 FEB 76 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RUDDER =  
BDFLAP =  
ELVN-R =

.000 SPDRK = .000  
-11.700 ELVN-L = .000  
.000 MACH = 1.100

PARAMETRIC DATA

RUN NO. 134/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
-4.047	-3.843	-1.81870	.76680	.07590	.03440	.11030	.05470	-39470	-36250
-3.971	.189	-1.85090	.76970	.08220	.03690	.11910	.05310	-35820	-35940
-3.998	4.285	-1.81850	.76640	.08730	.04650	.13390	.05310	-37160	-36560
	GRADIENT	.00003	-.00005	.00140	.00149	.00291	-.00020	.00283	-.00039

RUN NO. 135/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
-.036	-3.867	-2.29950	1.08770	.05810	.04430	.10240	.05330	-36860	-34940
-.059	.183	-3.6610	1.06150	.06480	.04300	.10780	.05350	-35940	-34570
-.052	4.261	-3.2930	1.05300	.07090	.03300	.10390	.05120	-35980	-35410
	GRADIENT	-.00365	-.00427	.00157	-.00139	.00018	-.00026	.00108	-.00058

RUN NO. 136/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
3.856	-3.869	1.26530	.63290	.04510	.01870	.06380	.05350	-36800	-35490
3.924	.189	1.26620	.62960	.05730	.01060	.06790	.04990	-35700	-35010
3.921	4.251	1.26210	.63610	.06740	.00430	.07170	.05100	-36320	-35860
	GRADIENT	-.00039	.00039	.00275	-.00177	.00097	-.00031	-.00015	-.00046

RUN NO. 137/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
7.863	-3.864	2.03990	.65770	.02980	-.01800	.01170	.05070	-38960	-36520
7.865	.180	2.04300	.65830	.05030	-.02170	.02860	.04710	-37210	-35810
7.863	4.247	2.02810	.65050	.06210	-.02290	.03910	.04680	-37540	-36870
	GRADIENT	-.00146	.00035	.00398	-.00050	.00338	-.00048	.00175	-.00043

RUN NO. 138/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
11.903	-3.846	2.27370	.66350	-.01920	-.05230	-.07150	.04150	-40160	-38100
11.911	.188	2.28320	.66470	-.01360	-.05050	-.06420	.03570	-39010	-37830
11.905	4.263	2.27100	.66410	.00060	-.04830	-.04830	.03950	-38930	-37490
	GRADIENT	-.00034	.00007	.00244	.00042	.00286	-.00024	.00155	-.00075

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBOX21) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBPK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RUN NO. 139/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

## ALPHA

-4.037

-4.030

-4.042

BETA

-3.849

.192

4.289

GRADIENT

-0.0502

LU/DU

-3.23140

-3.22370

-3.27210

XCP/L

.72620

.73290

.72040

CHEI

.02210

.05320

.05300

CHEO

.01990

.03130

.03440

CHETOT

.04210

.08440

.09740

CHEF

.00820

.00900

.00900

.00010

CP196

-24080

-24310

-23150

-22960

.00115

CP197

-23080

-23150

-22960

.00015

RUN NO. 140/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

## ALPHA

.024

.031

.021

BETA

-3.875

.185

4.265

GRADIENT

-0.0141

LU/DU

-1.78020

-1.77680

-1.79170

XCP/L

.95040

.97310

.92890

CHEI

.03570

.06130

.07000

CHEO

.02650

.03210

.03330

CHETOT

.06220

.09340

.10330

CHEF

.01080

.01310

.01330

.00031

RUN NO. 141/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

## ALPHA

3.922

3.975

3.972

BETA

-3.878

.188

4.260

GRADIENT

.00053

LU/DU

1.85930

1.75150

1.86350

XCP/L

.55470

.53830

.56410

CHEI

.05780

.07610

.08100

CHEO

.03600

.03550

.03240

CHETOT

.09370

.11170

.11340

CHEF

.01450

.01480

.01300

.00018

RUN NO. 142/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

## ALPHA

7.906

8.017

8.014

BETA

-3.870

.185

4.257

GRADIENT

-0.00033

LU/DU

2.94980

2.86150

2.94700

XCP/L

.61760

.61750

.62100

CHEI

.06640

.08100

.08710

CHEO

.01260

.01120

.01200

CHETOT

.07900

.09220

.09910

CHEF

.01790

.02030

.01990

.00025

RUN NO. 143/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

## ALPHA

11.899

11.956

11.948

BETA

-3.861

.190

4.274

GRADIENT

-0.0180

LU/DU

2.82870

2.66310

2.87400

XCP/L

.63440

.63230

.63500

CHEI

.03930

.04850

.05800

CHEO

-.01050

-.01180

-.01090

CHETOT

.02880

.03670

.04720

CHEF

.02910

.02960

.03080

.00033



DATE 08 MAY 76

TABULATED FORM

: : : AMES : (-073-1)

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: : : (-8) -142A/B/C/R ORBITER

(REBX22) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076  
 LREF = 474.8000 IN. YMRP = 375  
 BREF = 936.6900 IN. ZMRP = 375  
 SCALE = .0300

ALPHA  
 -4.045  
 -3.970  
 -3.957  
 -3.955  
 -4.005

BETA  
 -7.856  
 -3.843  
 .189  
 4.271  
 8.350  
 GRADIENT  
 -0.0645

LU/DU  
 -3.67590  
 -3.50600  
 -3.49910  
 -3.55820  
 -3.62220  
 -0.0645

XCP/L  
 .69530  
 .70380  
 .70750  
 .70080  
 .65450  
 -.00037

RN/L = 144/ 0

GRADIENT INTERVAL = -5.00/ 5.00

CHEI  
 .04020  
 .04450  
 .04980  
 .05460  
 .05890  
 .00124

CHEO  
 .02120  
 .02260  
 .02410  
 .02600  
 .02760  
 .00042

CHETOT  
 .06150  
 .06710  
 .07390  
 .08060  
 .08640  
 .00166

CHBF  
 -.00880  
 -.00950  
 -.00840  
 -.00880  
 -.00980  
 .00009

CP196  
 -.25170  
 -.22280  
 -.22390  
 -.21370  
 -.21840  
 .00112

CP197  
 -.22650  
 -.21850  
 -.21560  
 -.21520  
 -.21940  
 .30041

RUDDER = .000  
 BDF LAP = -11.700  
 ELVN-R = .000  
 SPOBRK = .000  
 ELVN-L = .000  
 MACH = .600

## PARAMETRIC DATA

ALPHA  
 -.025  
 -.014  
 -.070  
 -.063  
 -.058

BETA  
 -7.896  
 -3.863  
 .189  
 4.250  
 8.310  
 GRADIENT  
 -.00406

LU/DU  
 -.89140  
 -.90410  
 -.92290  
 -.93700  
 -.80260  
 -.00406

XCP/L  
 .87460  
 .89190  
 .90770  
 .89070  
 .90050  
 -.00138

RN/L = 145/ 0

GRADIENT INTERVAL = -5.00/ 5.00

CHEI  
 .04000  
 .04490  
 .05060  
 .05440  
 .05900  
 .00117

CHEO  
 .02150  
 .02190  
 .02230  
 .02280  
 .02300  
 .00011

CHETOT  
 .06150  
 .06680  
 .07300  
 .07720  
 .08200  
 .00128

CHBF  
 -.00760  
 -.00860  
 -.00720  
 -.00670  
 -.00740  
 .00023

CP196  
 -.24440  
 -.22900  
 -.21700  
 -.21140  
 -.20200  
 .00217

CP197  
 -.21940  
 -.22140  
 -.20620  
 -.21000  
 -.21990  
 .00140

ALPHA  
 3.933  
 3.936  
 3.935  
 4.026  
 4.030

BETA  
 -7.911  
 -3.866  
 .172  
 4.240  
 8.292  
 GRADIENT  
 -.00032

LU/DU  
 2.57350  
 2.26950  
 2.13040  
 2.26660  
 2.69670  
 -.00032

XCP/L  
 .57660  
 .55900  
 .54340  
 .55920  
 .57880  
 .00015

RN/L = 146/ 0

GRADIENT INTERVAL = -5.00/ 5.00

CHEI  
 .03800  
 .04460  
 .05040  
 .05490  
 .05970  
 .00127

CHEO  
 .01860  
 .01820  
 .01850  
 .01800  
 .01720  
 -.00002

CHETOT  
 .05650  
 .06280  
 .06890  
 .07300  
 .07690  
 .00126

CHBF  
 -.00820  
 -.00760  
 -.00620  
 -.00600  
 -.00740  
 .00020

CP196  
 -.24400  
 -.23100  
 -.21250  
 -.20040  
 -.20010  
 .00.77

CP197  
 -.21660  
 -.21370  
 -.19180  
 -.19900  
 -.20650  
 .00181

ALPHA  
 7.901  
 7.913  
 8.049  
 8.049  
 8.046

BETA  
 -7.896  
 -3.851  
 .175  
 4.238  
 8.297  
 GRADIENT  
 .00244

LU/DU  
 4.54130  
 4.42770  
 4.31340  
 4.44720  
 4.68900  
 .00244

XCP/L  
 .61790  
 .61450  
 .61090  
 .61670  
 .61860  
 .00027

RN/L = 147/ 0

GRADIENT INTERVAL = -5.00/ 5.00

CHEI  
 .03270  
 .03800  
 .04430  
 .05090  
 .05510  
 .00159

CHEO  
 .01130  
 .00800  
 .00780  
 .00720  
 .00690  
 -.00010

CHETOT  
 .04400  
 .04600  
 .05210  
 .05810  
 .06190  
 .00149

CHBF  
 -.01200  
 -.00770  
 -.00620  
 -.00700  
 -.00950  
 .00009

CP196  
 -.23320  
 -.21790  
 -.21040  
 -.20210  
 -.21460  
 .00195

CP197  
 -.22230  
 -.20070  
 -.19050  
 -.20280  
 -.21310  
 -.00026

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX22) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RUN NO. 148/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.953	-7.860	4.80250	.63440	.01900	.00010	.01900	-.01600	-.23550	-.22550
11.985	-3.840	4.69460	.52980	.02760	-.00100	.02660	-.01460	-.22460	-.20480
12.000	.181	4.65230	.62560	.03270	-.00080	.03200	-.01150	-.19890	-.18E90
12.027	4.252	4.70510	.63140	.03930	-.00560	.03580	-.01310	-.21620	-.19450
12.070	8.324	4.85510	.63680	.04270	-.00870	.03410	-.01720	-.21610	-.21070
	GRADIENT	.00132	.00020	.00145	-.00057	.00089	.00018	.00103	.00127

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX23) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 149/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-3.999	-3.856	-1.22110	.73170	.09630	.01980	.11610	-.03290	-.34650	-.34680
-3.926	.190	-1.22810	.73800	.10560	.01710	.12270	-.03090	-.34100	-.33950
-3.986	4.279	-1.22120	.73140	.11540	.01690	.13230	-.03260	-.34350	-.34020
	GRADIENT	-.00001	-.00004	.00235	-.00036	.00199	.00004	.00037	.00105

RUN NO. 150/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.006	-3.877	-.00530	4.51710	.06340	-.00400	.05930	-.04880	-.32660	-.32830
.011	.183	-.01890	2.12210	.07210	-.00760	.06450	-.04690	-.32500	-.31760
.023	4.256	.01130	-.85990	.08000	-.00960	.07040	-.05030	-.32920	-.32190
	GRADIENT	.00204	-.66118	.00204	-.00069	.00136	-.00018	-.00032	.00079

RUN NO. 151/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.926	-3.879	1.25020	.69580	.02740	-.02260	.00490	-.06910	-.32350	-.31790
3.958	.183	1.23120	.69150	.03260	-.02670	.00590	-.06580	-.31240	-.30750
3.971	4.247	1.27510	.69670	.04050	-.03070	.00980	-.06900	-.32060	-.31090
	GRADIENT	.00306	.00011	.00161	-.00100	.00062	.00001	.00036	.00086

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX23) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER =  
 BDFLAP =  
 ELVN-R =

.000 SPOBRK = .000  
 .000 ELVN-L = .000  
 .000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 152/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
7.933  
7.908  
7.872BETA  
-3.869  
.178  
4.245  
GRADIENTLU/DU  
2.00600  
2.01520  
2.02720  
.00261XCP/L  
.69460  
.69310  
.69670  
.00026CHEI  
-.00520  
-.00120  
.00510  
.00127CHEO  
-.04080  
-.04310  
-.04690  
-.00075CHTOT  
-.04600  
-.04430  
-.04180  
.00052CHBF  
-.09020  
-.08640  
-.09070  
-.00006CP196  
-.33580  
-.32140  
-.32780  
.00098CP197  
-.33830  
-.31270  
-.31900  
.00238

RUN NO. 153/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
11.931  
11.869  
11.865BETA  
-3.857  
-.183  
4.258  
GRADIENTLU/DU  
2.22890  
2.22880  
2.22040  
-.00105XCP/L  
.69320  
.69260  
.69350  
.00004CHEI  
-.05550  
-.04860  
-.04690  
.00106CHEO  
-.05860  
-.05680  
-.05620  
.00030CHTOT  
-.11410  
-.10540  
-.10310  
.00135CHBF  
-.10880  
-.10760  
-.11080  
-.00025CP196  
-.34890  
-.33770  
-.35020  
-.00016CP197  
-.34420  
-.33520  
-.34110  
.00038

RUN NO. 154/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
15.857  
15.871  
15.861BETA  
-3.836  
.184  
4.289  
GRADIENTLU/DU  
2.16040  
2.15220  
2.14860  
-.00145XCP/L  
.68990  
.69080  
.69040  
.00006CHEI  
-.10340  
-.10310  
-.09570  
.00095CHEO  
-.07490  
-.07340  
-.07190  
.00037CHTOT  
-.17830  
-.17660  
-.16760  
.00132CHBF  
-.12970  
-.13560  
-.13460  
-.00060CP196  
-.35770  
-.37040  
-.37000  
-.00151CP197  
-.36950  
-.36170  
-.35700  
.00154

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER =  
 BDFLAP =  
 ELVN-R =

.000 SPOBRK = .000  
 .000 ELVN-L = .000  
 .000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 155/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
-3.982  
-3.977  
-3.980BETA  
-3.844  
.190  
4.277  
GRADIENTLU/DU  
-1.46330  
-1.49700  
-1.46760  
-.00051XCP/L  
.75730  
.76220  
.75640  
-.00011CHEI  
-.09330  
.10370  
.11210  
.00231CHEO  
.04180  
.03990  
.03590  
-.00073CHTOT  
.13510  
.14360  
.14800  
.00159CHBF  
-.02630  
-.02130  
-.02610  
.00002CP196  
-.36690  
-.35340  
-.35980  
.00087CP197  
-.36310  
-.35100  
-.36080  
.00028

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX24) ( 03 FEB 76 )

DATE 08 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX24) ( 03 FEB 76 )

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA  
 RUDDER = .000 SPDRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 156/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
.038	-3.875	-.05020	1.75970	.06770	.01360	.08130	-.04220	-.34360	-.34170
.042	.180	-.06770	1.57690	.07840	.00370	.08210	-.03940	-.34180	-.33080
.044	4.251	-.04110	1.92030	.06820	-.00230	.08390	-.04460	-.35050	-.34570
	GRADIENT	.00112	.01981	.00228	-.00195	.00032	-.00030	-.00085	-.00049
RUN NO. 157/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
3.904	-3.872	1.29310	.67910	.03930	-.00980	.02950	-.06040	-.34790	-.33850
3.905	.182	1.27230	.67670	.04690	-.01500	.03190	-.06040	-.34730	-.33610
3.915	4.245	1.30610	.69310	.05690	-.02160	.03520	-.06410	-.34960	-.33950
	GRADIENT	.00099	.00049	.00216	-.00145	.00070	-.00046	-.00021	-.00000
RUN NO. 158/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
7.877	-3.867	2.07770	.68860	.00440	-.03220	-.02780	-.07970	-.36400	-.36870
7.882	.178	2.08090	.68670	.01920	-.03890	-.01970	-.07710	-.34800	-.34900
	4.244	2.07530	.69870	.02690	-.04110	-.01420	-.08390	-.36340	-.35730
	GRADIENT	-.00022	.00001	.00277	-.00110	.00168	-.00052	.00007	.00140
RUN NO. 159/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHEF	CP196	CP197
11.916	-3.850	2.29120	.68600	-.03140	-.06160	-.09300	-.09420	-.37850	-.39240
11.928	.186	2.30770	.68510	-.02560	-.05470	-.08030	-.09680	-.37160	-.36540
11.922	4.256	2.29540	.68500	-.02720	-.05390	-.08100	-.09800	-.37030	-.36810
	GRADIENT	.00051	.00000	.00052	.00095	.00148	-.00047	.00101	.00176

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX25) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER =  
 BDFLAP =  
 ELVN-R =

.000 SPOBRK = .000  
 .000 ELVN-L = .000  
 .000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 160/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHF	CP196	CP197
-3.989	-3.842	-1.76580	.75690	.07640	.03610	.11250	-.02820	-.38400	-.36610
-3.982	.191	-1.82140	.75710	.07760	.03490	.11250	-.02390	-.37820	-.37310
-3.987	4.273	-1.76870	.75490	.08190	.04590	.12780	-.03140	-.38590	-.38550
	GRADIENT	-.00034	-.00025	.00068	.00121	.00189	-.00040	-.00024	-.00235

RUN NO. 161/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHF	CP196	CP197
.056	-3.867	-1.8840	1.17740	.05930	.04580	.10520	-.03870	-.36560	-.34880
.058	.181	-.26120	1.10010	.06250	.04190	.10440	-.03860	-.36680	-.35890
.056	4.249	-1.9190	1.17050	.06860	.03190	.10050	-.04190	-.37210	-.37030
	GRADIENT	-.00042	-.00084	.00115	-.00171	-.00058	-.00039	-.00068	-.00265

RUN NO. 162/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHF	CP196	CP197
3.948	-3.871	1.35480	.65330	.04500	.01860	.06370	-.04600	-.37510	-.36350
3.948	.177	1.32830	.64790	.05860	.01120	.06980	-.05110	-.36180	-.36010
3.950	4.239	1.37220	.65760	.06850	.00450	.07300	-.05130	-.37460	-.37720
	GRADIENT	.00092	.00053	.00290	-.00174	.00115	-.00065	.00006	-.00169

RUN NO. 163/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHF	CP196	CP197
7.932	-3.857	2.12400	.66990	.02850	-.01780	.01070	-.05950	-.38670	-.37820
7.938	.185	2.15320	.67050	.04820	-.02290	.02530	-.06390	-.37070	-.36600
7.937	4.238	2.13130	.67130	.05210	-.02350	.03860	-.06540	-.38530	-.38040
	GRADIENT	.00090	.00017	.00415	-.00070	.00345	-.00073	.00017	-.00027

RUN NO. 164/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHF	CP196	CP197
11.970	-3.845	2.32720	.67130	-.01950	-.05270	-.07210	-.07630	-.39080	-.37290
11.981	.187	2.34780	.67240	-.01390	-.05160	-.06550	-.08140	-.39020	-.37560
11.975	4.250	2.33870	.67170	.00210	-.05020	-.04810	-.07840	-.33560	-.38820
	GRADIENT	.00142	.00005	.00267	.00031	.00297	-.00026	-.00072	-.00169

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX26) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 946.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RUN NO. 165/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.996	-3.845	-3.19740	.70890	.01880	.02010	.03890	-.04140	-.23390	-.21770
-3.977	.190	-3.18590	.71720	.04750	.03030	.07780	-.04050	-.24050	-.22880
-3.985	4.276	-3.23590	.70410	.05840	.03370	.09210	-.04180	-.23940	-.21630
	GRADIENT	-.00476	-.00060	.00487	.00167	.00654	-.00005	-.00068	.00098

RUN NO. 166/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.061	-3.869	-.56000	.93200	.03120	.02530	.05650	-.04000	-.24980	-.21770
.067	.174	-.60210	.95620	.05570	.03150	.08720	-.03640	-.22590	-.20740
.063	4.252	-.55780	.91280	.06520	.03250	.09770	-.03900	-.22150	-.21640
	GRADIENT	-.00035	-.00238	.00418	.00089	.00507	.00012	.00336	.00016

RUN NO. 167/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.954	-3.877	2.16650	.59900	.05200	.03380	.08580	-.03780	-.22780	-.20720
3.955	.186	2.04890	.58300	.06890	.03380	.10280	-.03670	-.21420	-.19340
3.963	4.243	2.22470	.60780	.07650	.03130	.10800	-.03760	-.21900	-.20290
	GRADIENT	.00715	.00108	.00303	-.00031	.00273	.00002	.00108	.00051

RUN NO. 168/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.926	-3.870	3.14530	.63580	.06080	.01270	.07360	-.03930	-.21270	-.19530
7.938	.179	3.12960	.63460	.07540	.01080	.08630	-.03980	-.21770	-.19460
7.933	4.243	3.21490	.63650	.08220	.01200	.09420	-.03850	-.22480	-.21110
	GRADIENT	.00659	.00033	.00264	-.00009	.00254	.00010	-.00149	-.00183

RUN NO. 169/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.953	-3.854	3.00020	.64540	.03760	-.01130	.02640	-.04780	-.23710	-.21680
11.965	.186	2.98350	.64370	.04790	-.01280	.03510	-.04890	-.24270	-.21170
11.949	4.257	2.99080	.64510	.05750	-.00910	.04840	-.04830	-.25020	-.21470
	GRADIENT	-.00116	-.00004	.00245	.00027	.00271	-.00006	-.00162	.00026



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE0X27) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RUN NO. 174, 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
11.909	-7.850	4.97180	.64540	.01670	-.00040	.01620	-.04830	-.21240	-.21020
11.929	-3.836	4.92380	.63970	.02460	-.00150	.02300	-.04190	-.21590	-.19530
11.930	.181	4.86200	.63630	.03010	-.00120	.02890	-.04060	-.20710	-.18910
11.930	4.251	4.92350	.64160	.03680	-.00570	.03110	-.04130	-.22440	-.20050
11.920	8.317	5.00550	.64640	.04030	-.00690	.03140	-.04680	-.24590	-.21490
	GRADIENT	.00001	.00024	.00151	-.00052	.00100	.00007	-.00106	-.00055

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8X28) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 175, 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
-3.978	-3.855	-.82870	.68940	.09500	.01990	.11490	-.20690	-.34980	-.35440
-3.971	.185	-.84680	.69990	.10490	.01810	.12300	-.20900	-.34730	-.34530
-3.978	4.270	-.82690	.69330	.11500	.01730	.13230	-.20100	-.34420	-.34750
	GRADIENT	.00023	.00060	.00246	-.00032	.00214	.00073	.00069	.00085

RUN NO. 176, 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
-.069	-3.876	.26530	.84310	.06370	-.00330	.06040	-.23180	-.35000	-.34350
-.045	.182	.23930	.81390	.07210	-.00570	.06530	-.22900	-.35180	-.34110
-.049	4.247	.23830	.81850	.08050	-.00810	.07240	-.22560	-.35500	-.34360
	GRADIENT	-.00329	-.00303	.00207	-.00059	.00148	.00076	-.00062	-.00004

RUN NO. 177, 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
3.838	-3.879	1.32410	.73910	.02740	-.02130	.00620	-.26790	-.35260	-.33610
3.892	.179	1.28430	.73320	.03260	-.02540	.00720	-.25940	-.34460	-.32970
3.896	4.241	1.29920	.73460	.04040	-.02930	.01110	-.26420	-.35310	-.34540
	GRADIENT	-.00307	-.00055	.00160	-.00099	.00060	.00046	-.00006	-.00115



DATE 08 MAY 76

TABULATED FORCE DATA - 0A198 ( AMES 11-073-1 )

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AMES 11-073(0A198) -140A/B/C/R ORBITER

(REBX28) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 178/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 11.854  
 11.873  
 11.870

BETA  
 -3.870  
 .176  
 4.238  
 GRADIENT

LU/DU  
 1.95780  
 1.93500  
 1.93830  
 -.00240

XCP/L  
 .72360  
 .72080  
 .72140  
 -.00027

CHEI  
 -.00560  
 -.00180  
 .00350  
 .00112

CHEO  
 -.03990  
 -.04240  
 -.04640  
 -.00080

CHETOT  
 -.04550  
 -.04420  
 -.04290  
 .00032

CHBF  
 -.30590  
 -.30030  
 -.30300  
 .00036

CP196  
 -.36060  
 -.35270  
 -.35600  
 .00057

CP197  
 -.34620  
 -.33790  
 -.34930  
 -.00038

RUDDER = -10.000 SPCBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 179/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 11.853  
 11.873  
 11.870

BETA  
 -3.855  
 .179  
 4.256  
 GRADIENT

LU/DU  
 2.12680  
 2.11140  
 2.08910  
 -.00465

XCP/L  
 .71560  
 .71420  
 .71310  
 -.00031

CHEI  
 -.05440  
 -.04850  
 -.04640  
 .00039

CHEO  
 -.05960  
 -.05580  
 -.05570  
 .00036

CHETOT  
 -.11300  
 -.10430  
 -.10210  
 .00134

CHBF  
 -.34390  
 -.33720  
 -.34080  
 .00038

CP196  
 -.36930  
 -.35150  
 -.37010  
 -.00010

CP197  
 -.35710  
 -.35940  
 -.36750  
 -.00128

RUN NO. 180/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 15.854  
 15.868  
 15.859

BETA  
 -3.831  
 .178  
 4.283  
 GRADIENT

LU/DU  
 2.05900  
 2.04890  
 2.02950  
 -.00354

XCP/L  
 .70870  
 .70840  
 .70670  
 -.00025

CHEI  
 -.10390  
 -.10280  
 -.09550  
 .00104

CHEO  
 -.07350  
 -.07290  
 -.07130  
 .00028

CHETOT  
 -.17760  
 -.17570  
 -.16880  
 .00133

CHBF  
 -.37070  
 -.37240  
 -.37790  
 -.00089

CP196  
 -.37750  
 -.37240  
 -.36670  
 .00133

CP197  
 -.38120  
 -.36910  
 -.36900  
 .00150

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## REFERENCE DATA

RUN NO. 181/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 -3.986  
 -3.967  
 -3.974

BETA  
 -3.845  
 .186  
 4.269  
 GRADIENT

LU/DU  
 -.97970  
 -.99900  
 -.96350  
 .00201

XCP/L  
 .71540  
 .72260  
 .71770  
 .00028

CHEI  
 .09270  
 .10250  
 .11140  
 .00230

CHEO  
 .04220  
 .04030  
 .03690  
 -.00065

CHETOT  
 .13490  
 .14280  
 .14830  
 .00165

CHBF  
 -.21970  
 -.22270  
 -.21350  
 .00077

CP196  
 -.39160  
 -.37820  
 -.38180  
 .00120

CP197  
 -.37780  
 -.37230  
 -.39210  
 -.00053

RUDDER = -10.000 SPCBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

AMES 11-073(0A198) -140A/B/C/R ORBITER

(REBX29) ( 03 FEB 76 )

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE9X29) 1 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDGRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 182/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
-0.35	-3.871	.27190	.79040	.06710	.01480	.08190	-24400	-36390	-36400
-0.27	.182	.25500	.76580	.07630	.00520	.08350	-24070	-36280	-36490
-0.32	4.246	.24910	.77430	.08590	-.00120	.08470	-24080	-36620	-36470
	GRADIENT	-.00281	-.00198	.00232	-.00197	.00034	.00039	-.00079	-.00255

RUN NO. 183/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
3.922	-3.869	1.43440	.73500	.03900	-.00920	.02970	-27940	-39180	-36500
3.922	.180	1.36830	.73050	.04650	-.01440	.03200	-27690	-38340	-37370
3.925	4.237	1.37700	.73150	.05710	-.02070	.03630	-27920	-40000	-36240
	GRADIENT	-.00708	-.00042	.00223	-.00142	.00081	.00002	-.00101	-.00276

RUN NO. 184/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
7.990	-3.870	2.04530	.72300	.00370	-.03210	-.02830	-31610	-41400	-39460
7.994	.176	2.01090	.71980	.01850	-.03910	-.02060	-31320	-40440	-38740
7.996	4.240	1.99920	.71850	.02450	-.04110	-.01560	-31600	-40890	-40700
	GRADIENT	-.00692	-.00054	.00256	-.00111	.00144	.00001	.00063	-.00153

RUN NO. 185/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
11.923	-3.851	2.18740	.71250	-.03150	-.06030	-.09180	-34920	-42760	-41270
11.934	.177	2.17540	.71010	-.02690	-.05380	-.08070	-34490	-42280	-41480
11.927	4.253	2.14880	.70950	-.02620	-.05310	-.07930	-34490	-41580	-41140
	GRADIENT	-.00477	-.00036	.00055	.00089	.00154	.00053	.00146	.00016

DATE 08 MAY 75

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8X30) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.100

RUN NO. 186/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
-3.034	-3.652	-1.13030	.70410	.07310	.03450	.10750	-.24250	-.43180	-.40400
-3.955	.193	-1.17430	.71140	.07610	.03610	.11210	-.24920	-.42910	-.41310
-3.992	4.269	-1.13630	.70870	.08210	.04610	.12820	-.23920	-.43760	-.42720
	GRADIENT	-.00072	.00056	.00111	.00143	.00255	.00041	-.00072	-.00265

RUN NO. 187/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
-0.020	-3.856	.22980	.78120	.05820	.04510	.10130	-.26090	-.42750	-.40040
-0.014	.187	.21580	.75550	.06030	.04330	.10350	-.26350	-.42300	-.40600
-0.017	4.244	.24570	.77280	.06570	.03350	.09330	-.25930	-.43430	-.42020
	GRADIENT	-.00174	-.00103	.00117	-.00142	-.00025	.00020	-.00084	-.00244

RUN NO. 188/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
3.958	-3.669	1.54720	.72760	.04170	.01850	.06020	-.28530	-.43230	-.40970
3.959	.177	1.50120	.72440	.05420	.01150	.06570	-.28610	-.43200	-.41630
3.960	4.234	1.49930	.72650	.06620	.00550	.07180	-.28520	-.44200	-.43260
	GRADIENT	-.00603	-.00014	.00302	-.00159	.00143	-.00011	-.00120	-.00283

RUN NO. 189/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
8.035	-3.862	2.12240	.71680	.02570	-.01750	.00220	-.31690	-.46330	-.44370
8.041	.181	2.03250	.71460	.04590	-.02210	.02390	-.31290	-.45400	-.44070
8.040	4.239	2.04510	.71170	.05750	-.02300	.03450	-.31140	-.45420	-.45400
	GRADIENT	-.00955	-.00063	.00393	-.00068	.00325	.00068	.00112	-.00127

RUN NO. 190/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
11.975	-3.843	2.23090	.70420	-.02280	-.05150	-.07440	-.33290	-.46710	-.44790
11.985	.181	2.21270	.70240	-.01390	-.04910	-.06300	-.33210	-.45320	-.44570
11.977	4.250	2.17230	.70190	.00050	-.04730	-.04680	-.33230	-.46180	-.45730
	GRADIENT	-.00725	-.00028	.00289	.00033	.00341	.00011	.00065	-.00116

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX31) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.5830 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = -10.000  
 BDFLAP = 16.300  
 ELVN-R = .000  
 SPDERK = 35.000  
 ELVN-L = 10.000  
 MACH = .900

## PARAMETRIC DATA

RUN NO. 191/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 -3.977  
 -3.975  
 -3.986

BETA  
 -3.952  
 .187  
 4.269  
 GRADIENT

LU/DU  
 -1.54730  
 -1.60800  
 -1.65460  
 -.01321

XCP/L  
 .60750  
 .63310  
 .63110  
 .60290

CHEI  
 .01610  
 .03120  
 .04290  
 .00330

CHEO  
 .02230  
 .02670  
 .03120  
 .00110

CHETOT  
 .03940  
 .06000  
 .07420  
 .00441

CHBF  
 -.16340  
 -.17240  
 -.16630  
 -.00035

CF195  
 -.30220  
 -.30930  
 -.32030  
 -.03219

CP197  
 -.32440  
 -.32300  
 -.32100  
 .00042

RUN NO. 192/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 -.002  
 .000  
 -.010

BETA  
 -3.670  
 .164  
 4.247  
 GRADIENT

LU/DU  
 .64330  
 .46060  
 .38180  
 -.03221

XCP/L  
 .86130  
 .84110  
 .88310  
 .00269

CHEI  
 .02590  
 .03920  
 .04880  
 .00282

CHEO  
 .02550  
 .02760  
 .02910  
 .00044

CHETOT  
 .05140  
 .06580  
 .07790  
 .00326

CHBF  
 -.16890  
 -.16680  
 -.16960  
 -.00009

CF195  
 -.30580  
 -.30770  
 -.32090  
 -.00186

CP197  
 -.30430  
 -.29550  
 -.31520  
 -.00134

RUN NO. 193/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 3.984  
 3.983  
 3.979

BETA  
 -3.872  
 .184  
 4.243  
 GRADIENT

LU/DU  
 2.53580  
 2.33120  
 2.28310  
 -.03065

XCP/L  
 .71680  
 .70910  
 .71430  
 -.00031

CHEI  
 .03620  
 .04840  
 .05740  
 .00261

CHEO  
 .02400  
 .02830  
 .02840  
 .00054

CHETOT  
 .06030  
 .07680  
 .08580  
 .00314

CHBF  
 -.17220  
 -.16930  
 -.17450  
 -.00028

CF196  
 -.29810  
 -.31200  
 -.30920  
 -.00137

CP197  
 -.27770  
 -.29360  
 -.30710  
 -.00362

RUN NO. 194/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 8.057  
 8.064  
 8.059

BETA  
 -3.850  
 .187  
 4.245  
 GRADIENT

LU/DU  
 2.93350  
 2.32720  
 2.63580  
 -.01144

XCP/L  
 .69770  
 .69640  
 .69970  
 .00025

CHEI  
 .03820  
 .04960  
 .05760  
 .00232

CHEO  
 .00850  
 .00940  
 .01150  
 .00037

CHETOT  
 .04660  
 .05900  
 .06850  
 .00270

CHBF  
 -.17530  
 -.17600  
 -.18060  
 -.00065

CF196  
 -.29710  
 -.31400  
 -.32500  
 -.00394

CP197  
 -.26560  
 -.27650  
 -.31260  
 -.00558

RUN NO. 195/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 11.980  
 11.980  
 11.975

BETA  
 -3.834  
 .184  
 4.259  
 GRADIENT

LU/DU  
 2.91180  
 2.78020  
 2.73410  
 -.00958

XCP/L  
 .68810  
 .68540  
 .68910  
 .00012

CHEI  
 .01780  
 .02680  
 .03330  
 .00195

CHEO  
 -.01340  
 -.01390  
 -.01050  
 .00736

CHETOT  
 .00420  
 .01300  
 .02290  
 .00231

CHBF  
 -.17780  
 -.17670  
 -.18240  
 -.00057

CF195  
 -.29370  
 -.29410  
 -.32240  
 -.00107

CP197  
 -.28090  
 -.27310  
 -.29200  
 -.00137

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX32) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUDDER = -10.000 SPEEDK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .600

## PARAMETRIC DATA

RUN NO. 195/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP195	CP197
-4.052	-7.850	1.32200	.50260	.02970	.02060	.05030	-1.1770	-2.650	-28340
-4.036	-3.835	-1.35730	.54060	.03320	.02210	.05530	-1.1250	-2.5520	-28150
-4.020	.192	-1.34910	.54900	.03810	.02350	.06170	-1.12560	-2.5930	-28510
-4.023	4.273	-1.34650	.53380	.04310	.02530	.06640	-1.12390	-2.7150	-28590
-4.045	8.346	-1.27530	.50500	.04750	.02630	.07440	-1.12460	-2.8330	-27540
	GRADIENT	.00137	-.00122	.00122	.00039	.00162	-.00023	-.00163	.00310

RUN NO. 197/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP195	CP197
.034	-7.893	1.21050	.83130	.02960	.02100	.05050	-1.12400	-2.650	-27540
.043	-3.857	1.01050	.81890	.03380	.02160	.05540	-1.12320	-2.5930	-28220
.045	.186	.87370	.82760	.03650	.02180	.05840	-1.12530	-2.7150	-28150
.041	4.251	.96710	.84240	.04390	.02180	.05570	-1.12760	-2.8330	-28340
.035	8.312	1.11650	.83700	.04750	.02210	.06960	-1.13110	-2.9310	-28320
	GRADIENT	-.00533	.00290	.00125	.00002	.00127	-.00057	-.00271	.00240

RUN NO. 198/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP195	CP197
4.014	-7.879	3.25230	.71020	.02820	.01740	.04520	-1.12850	-2.650	-27540
4.016	-3.855	3.01820	.70410	.03340	.01770	.05020	-1.12830	-2.550	-28370
4.015	.196	2.90690	.70250	.03920	.01770	.05620	-1.12930	-2.7100	-28310
4.015	4.243	2.93930	.70980	.04370	.01770	.06050	-1.13370	-2.8570	-28480
4.018	8.295	3.14020	.71350	.04750	.01770	.06350	-1.13700	-2.9740	-27560
	GRADIENT	-.00987	.00070	.00127	.00000	.00131	-.00067	-.00222	.00125

RUN NO. 192/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP195	CP197
8.080	-7.877	4.19590	.69720	.02140	.00940	.03080	-1.13410	-2.650	-27100
8.083	-3.648	4.11090	.68340	.02620	.00690	.03310	-1.13110	-2.7820	-28320
8.097	.189	3.97180	.68490	.03240	.00570	.03810	-1.13390	-2.8760	-27100
8.085	4.243	3.94570	.69020	.03900	.00530	.04470	-1.13900	-2.9960	-28320
8.082	8.301	4.05510	.69150	.04320	.00520	.04830	-1.14380	-3.1280	-28320
	GRADIENT	-.00242	.00054	.00158	-.00020	.00138	-.00106	-.00499	.00473

DATE 08 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX32) ( 03 FEB 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .600

RUN NO. 200/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
12.017	-7.830	4.12770	.67880	.00760	-.00160	.00600	-.13980	-.27010	-.27240
12.037	-3.625	4.05180	.67560	.01450	-.00330	.01130	-.13730	-.26520	-.22310
12.038	.185	4.01640	.67540	.01930	-.00230	.01710	-.13610	-.25330	-.23790
12.033	4.256	4.02170	.68040	.02690	-.00630	.02060	-.14230	-.28550	-.26030
12.024	8.318	4.11410	.68270	.03090	-.00980	.02110	-.14640	-.28810	-.28620
	GRADIENT	-.00371	.00060	.00154	-.00037	.00115	-.00062	-.00253	-.00387

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX33) ( 03 FEB 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

RUN NO. 201/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
-4.110	-3.848	-.86970	.69790	-.02960	-.03520	-.06480	-.19740	-.34960	-.35890
-4.105	.195	-.88970	.70360	-.02270	-.03360	-.05630	-.20410	-.35300	-.35130
-4.114	4.277	-.87180	.69200	-.01680	-.03210	-.04890	-.20010	-.36210	-.35730
	GRADIENT	-.00037	-.00073	.00158	.00038	.00196	-.00033	-.00154	.00019

RUN NO. 202/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
-0.049	-3.866	.23400	.81230	-.05590	-.05090	-.10780	-.22170	-.34010	-.34110
-.046	.181	.22270	.81110	-.05320	-.05320	-.10640	-.22400	-.33810	-.33500
-.050	4.256	.25820	.83960	-.04810	-.05490	-.10300	-.22680	-.34230	-.34190
	GRADIENT	.00299	.00337	.00108	-.00049	.00059	-.00063	-.00027	-.00010

RUN NO. 203/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
3.895	-3.869	1.29470	.73330	-.06900	-.07210	-.16020	-.25840	-.34090	-.33620
3.895	.190	1.28230	.73140	-.08480	-.07410	-.15890	-.25410	-.32660	-.32200
3.896	4.246	1.33110	.73730	-.07880	-.07420	-.15300	-.26440	-.33280	-.32890
	GRADIENT	.00572	.00049	.00113	-.00026	.00089	-.00074	.00100	.00090

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX33) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUN NO. 204/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP136	CP197
7.947	-3.865	1.92340	.71920	-.12640	-.09150	-.21790	-.29900	-.35940	-.35080
7.946	.185	1.92740	.71950	-.12370	-.09210	-.21590	-.29340	-.34420	-.33330
7.944	4.238	1.94990	.72220	-.11650	-.09130	-.20780	-.29870	-.34300	-.33450
	GRADIENT	.00327	.00037	.00122	.00002	.00125	.00004	.00202	.00201

RUDDER = 10.000 SPDBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 205/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.859	-3.851	2.09160	.71220	-.16970	-.11130	-.28100	-.37590	-.37500	-.36290
11.865	.189	2.11430	.71300	-.16020	-.11120	-.27140	-.33290	-.35970	-.34030
11.860	4.253	2.11270	.71440	-.16450	-.10850	-.27290	-.33620	-.36500	-.35500
	GRADIENT	.00260	.00027	.00064	.00035	.00100	-.00028	.00123	.00097

RUDDER = 10.000 SPDBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 206/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
15.849	-3.830	2.03960	.70580	-.20980	-.12440	-.33420	-.36880	-.38450	-.36800
15.859	.186	2.04010	.70730	-.20940	-.12480	-.33420	-.36850	-.38380	-.36720
15.851	4.283	2.04600	.70780	-.19850	-.12620	-.32460	-.36560	-.38010	-.36550
	GRADIENT	.00079	.00025	.00140	-.00022	.00119	.00040	.00054	.00031

RUDDER = 10.000 SPDBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.250

## PARAMETRIC DATA

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX34) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUN NO. 207/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.684	-3.845	-1.00030	.72340	-.04440	-.03010	-.07450	-.21150	-.39110	-.38900
-4.041	.192	-1.02310	.72890	-.03950	-.02650	-.06590	-.21750	-.37780	-.37860
-4.051	4.275	-1.01290	.71970	-.02430	-.02430	-.05700	-.21230	-.38130	-.38020
	GRADIENT	-.00154	-.00046	.00144	.00071	.00216	-.00010	.00120	.00108

RUDDER = 10.000 SPDBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.250

## PARAMETRIC DATA

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX34) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.250

RUN NO. 208/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-0.032	-3.867	.26120	.75420	-.06640	-.04760	-.11400	-.23430	-.38100	-.38270
-.029	.184	.25190	.74820	-.06140	-.04950	-.11090	-.23740	-.36520	-.36350
-.035	4.1	.25930	.78170	-.05380	-.04990	-.10370	-.24140	-.37360	-.37350
	GRADIENT	-.00016	.00339	.0.155	-.00028	.00127	-.00087	.00091	.00113

RUN NO. 209/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.926	-3.871	1.36830	.72660	-.09310	-.07230	-.16550	-.27190	-.38680	-.38710
3.924	.180	1.36010	.72630	-.08540	-.07550	-.16090	-.27040	-.37490	-.37060
3.934	4.244	1.40260	.73340	-.07980	-.07790	-.15770	-.27640	-.37150	-.36840
	GRADIENT	.00176	.00084	.00164	-.00069	.00096	-.00056	.00188	.00230

RUN NO. 210/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.988	-3.865	1.99290	.71540	-.12440	-.09340	-.21780	-.30810	-.40890	-.40150
7.987	.186	1.99910	.71800	-.12120	-.09740	-.21670	-.30740	-.39160	-.37840
7.988	4.237	2.02560	.72070	-.11190	-.10040	-.21230	-.31220	-.39440	-.38570
	GRADIENT	.00404	.00065	.00154	-.00086	.00068	-.00051	.00179	.00183

RUN NO. 211/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.921	-3.850	2.15700	.70790	-.15920	-.11490	-.27410	-.33680	-.41960	-.41160
11.932	.189	2.18500	.70910	-.15680	-.11330	-.27010	-.33750	-.40800	-.39420
11.924	4.253	2.18070	.71030	-.14900	-.11760	-.26660	-.34320	-.41080	-.40230
	GRADIENT	.00292	.00030	.00126	-.00033	.00093	-.00079	.00108	.00114



REFERENCE DATA

SREF = 2690.0000 SQ.FT.

LREF = 474.8000 IN.

BREF = 936.6800 IN.

SCALE = .0300

AMES 11-073(OA148) -140A/B/C/R ORBITTER

SPD8RK = 35.000

ELVN-L = .000

MACH = 1.100

PARAMETRIC DATA									
RUDIER =		10.000		SPD8RK =		35.000			
BDF LAP =		16.300		ELVN-L =		.000			
ELVN-R =		10.000		MACH =		1.100			
GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	RUN NO.	212/ 0	RN/L =	3.18	CHEI	CHEO	CHE TOT	CHEF	CP197
	BETA	LU/DU	XCP/L						
-4.064	-3.846	-1.19020	.71750		-0.07290	-0.04490	-1.11770	-23480	-41570
-4.062	.195	-1.22480	.71570		-0.06470	-0.04100	-1.05600	-24560	-41360
-4.062	4.274	-1.20280	.71120		-0.05390	-0.03180	-0.85700	-23600	-41290
	GRADIENT	-0.00154	-0.00078		-0.00234	-0.0161	-0.00394	-0.00014	-0.00035
ALPHA	RUN NO.	213/ 0	RN/L =	3.18	CHEI	CHEO	CHE TOT	CHEF	CP197
	BETA	LU/DU	XCP/L						
-0.023	-3.863	.22350	.75280		-0.06530	-0.04640	-1.13180	-25200	-41860
-0.020	.185	.18670	.70550		-0.07340	-0.04020	-1.12600	-25710	-40900
-0.024	4.249	.22460	.75780		-0.06310	-0.03390	-0.97100	-25370	-40610
	GRADIENT	.00014	.00062		-0.00274	-0.0154	-0.00428	-0.00021	-0.00154
ALPHA	RUN NO.	214/ 0	RN/L =	3.18	CHEI	CHEO	CHE TOT	CHEF	CP197
	BETA	LU/DU	XCP/L						
3.952	-3.863	1.47250	.71890		-0.05530	-0.06150	-1.15680	-27670	-43240
3.952	.189	1.46680	.71690		-0.07490	-0.05960	-1.13450	-27780	-42210
3.960	4.243	1.53080	.72370		-0.05940	-0.06070	-1.20100	-28030	-42190
	GRADIENT	.00719	.00059		-0.03443	-0.00010	-0.00453	-0.00044	-0.00130
ALPHA	RUN NO.	215/ 0	RN/L =	3.18	CHEI	CHEO	CHE TOT	CHEF	CP197
	BETA	LU/DU	XCP/L						
8.030	-3.862	2.04030	.70800		-0.11150	-0.08530	-1.19680	-30230	-45720
8.038	.183	2.10280	.71010		-0.09450	-0.08620	-1.18070	-30160	-43950
8.037	4.237	2.12580	.71350		-0.08400	-0.08780	-1.17180	-30950	-44940
	GRADIENT	.01058	.00065		-0.00340	-0.00031	-0.00309	-0.00089	-0.00096
ALPHA	RUN NO.	216/ 0	RN/L =	3.18	CHEI	CHEO	CHE TOT	CHEF	CP197
	BETA	LU/DU	XCP/L						
11.975	-3.842	2.17350	.69860		-0.14880	-0.11010	-1.25990	-32550	-47370
11.986	.188	2.22320	.70070		-0.13800	-0.10960	-1.24760	-32420	-45480
11.981	4.246	2.23890	.70200		-0.13280	-0.10770	-1.24040	-32870	-45130
	GRADIENT	.00808	.00042		-0.00198	-0.00030	-0.00223	-0.00040	-0.00277

(REBX36) ( 03 FEB 76 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 217/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-3.844	-1.74290	.64710	-.02720	-.01600	-.04320	-.16460	-.32210	-.34190
.194	-1.71630	.64610	-.02050	-.01810	-.03850	-.16680	-.31320	-.33430
4.272	-1.66510	.61790	-.01760	-.01720	-.03480	-.16010	-.29800	-.30260
GRADIENT	.00959	-.00350	.00118	-.00015	.00103	.00056	.00297	.00485

RUN NO. 218/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-3.866	.40720	.83930	-.02230	-.01100	-.03340	-.16430	-.31780	-.33280
.183	.48550	.81550	-.01410	-.01010	-.02430	-.16310	-.29710	-.31750
4.248	.62150	.84720	-.01050	-.01390	-.02430	-.16300	-.29590	-.30740
GRADIENT	.02541	.00098	.00145	-.00036	.00112	.00016	.00271	.00313

RUN NO. 219/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-3.873	2.20170	.70630	-.03070	-.02420	-.05490	-.16950	-.31580	-.31390
.185	2.29430	.70250	-.01790	-.02270	-.04070	-.16580	-.29730	-.30870
4.242	2.47130	.71070	-.01070	-.02440	-.03520	-.16580	-.28700	-.29650
GRADIENT	.83322	.00054	.00246	-.00002	.00243	.00046	.00355	.00214

RUN NO. 220/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-3.862	2.82200	.69370	-.05420	-.05360	-.10720	-.17740	-.31150	-.31800
.184	2.88970	.69200	-.04480	-.05520	-.10000	-.17260	-.29040	-.29830
4.239	2.98040	.69400	-.02550	-.05360	-.07920	-.16830	-.29010	-.29250
GRADIENT	.01955	.00004	.00354	-.00007	.00346	.00112	.00264	.00315

RUN NO. 221/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-3.854	2.73790	.68590	-.09410	-.07460	-.11970	-.17760	-.32820	-.33930
.188	2.76710	.68410	-.08390	-.07620	-.16010	-.17100	-.30040	-.29760
4.259	2.77380	.68650	-.06550	-.07520	-.14070	-.17130	-.30820	-.29820
GRADIENT	.00442	.00007	.00353	-.00007	.00345	.00078	.00234	.00506

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX37) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA  
 RUDDER = 10.000 SPDBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .600

RUN NO. 222/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CPI96	CPI97
-4.041	-7.848	-1.31280	.52050	-.01650	-.01490	-.03140	-.11940	-.27520	-.30940
-4.025	-3.846	-1.37430	.55030	-.01200	-.01350	-.02540	-.11900	-.27490	-.30900
-3.855	.184	-1.35010	.56190	-.00900	-.01240	-.02140	-.12010	-.27390	-.29540
-3.930	4.265	-1.34700	.54710	-.00630	-.01090	-.01720	-.11470	-.27710	-.26770
-3.946	8.339	-1.31150	.51520	-.00400	-.00870	-.01270	-.11040	-.27920	-.26740
	GRADIENT	.00336	-.00040	.00070	.00032	.00101	.00053	-.00027	.00509

RUN NO. 223/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CPI96	CPI97
.030	-7.898	1.04320	.83820	-.01770	-.01850	-.03620	-.12680	-.27360	-.29860
.040	-3.853	.85430	.82340	-.01320	-.01640	-.03160	-.12200	-.27440	-.30690
.104	.181	.84800	.81180	-.00920	-.01780	-.02700	-.11930	-.27010	-.28960
.102	4.244	.94650	.81590	-.00700	-.01760	-.02460	-.11780	-.27160	-.27270
.019	8.303	1.16700	.82210	-.00460	-.01620	-.02080	-.11560	-.26950	-.26940
	GRADIENT	.00645	-.00092	.00076	.00010	.00086	.00052	.00034	.00422

RUN NO. 224/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CPI96	CPI97
4.036	-7.909	2.99560	.71040	-.02520	-.02780	-.05300	-.13150	-.28010	-.29710
4.041	-3.857	2.88840	.70290	-.01760	-.02870	-.04630	-.12700	-.26740	-.28600
4.043	.186	2.80060	.69740	-.01330	-.02870	-.04200	-.12250	-.25740	-.27230
4.044	4.237	2.95690	.70030	-.01030	-.02830	-.03870	-.12050	-.26510	-.27130
4.049	8.184	3.26090	.70410	-.00720	-.02770	-.03490	-.12120	-.25620	-.26690
	GRADIENT	.00945	-.00032	.00090	.00005	.00094	.00080	.00028	.00181

RUN NO. 225/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CPI96	CPI97
7.972	-7.894	3.93000	.63880	-.03500	-.03690	-.07190	-.13730	-.28420	-.30040
7.984	-3.864	3.94640	.69520	-.02960	-.04050	-.07010	-.13180	-.26680	-.28920
7.990	.171	3.96250	.68080	-.02280	-.04220	-.06500	-.12640	-.24500	-.25040
7.990	4.234	4.08230	.68200	-.01760	-.04230	-.06050	-.12480	-.24200	-.25250
7.983	8.238	4.21780	.68390	-.01300	-.04310	-.05610	-.12660	-.26420	-.25370
	GRADIENT	.01696	-.00039	.00148	-.00030	.00119	.00086	.00306	.00453

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(REBX37) ( 03 FEB 76 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 226/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.959	-7.860	4.08140	.68000	-.05120	-.04880	-.10000	-.13940	-.28930	-.30790
11.981	-3.846	4.02260	.67640	-.04800	-.05020	-.09820	-.13450	-.26590	-.28380
11.991	.172	4.00370	.67290	-.04250	-.05140	-.09400	-.13050	-.24890	-.25380
11.985	4.243	4.02010	.67480	-.03220	-.05530	-.08750	-.13250	-.25170	-.25570
11.975	8.313	4.13890	.67730	-.02830	-.05470	-.08300	-.13310	-.25280	-.25640
	GRADIENT	-.00030	-.00020	.00195	-.00063	.00132	.00025	.00187	.00347

RUDDER = 10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX38) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 227/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.002	-3.853	-.68050	.75140	-.02890	-.03670	-.06570	-.20290	-.32570	-.34100
-3.940	.193	-.68070	.76240	-.02290	-.03640	-.05930	-.20900	-.33510	-.33860
-3.950	4.276	-.68400	.75250	-.01690	-.03390	-.05080	-.20410	-.35050	-.34960
	GRADIENT	.00203	.00013	.00148	.00034	.00183	-.00015	-.00305	-.00106

RUDDER = 10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 228/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.030	-3.669	.25190	.64720	-.05740	-.05380	-.11120	-.23850	-.34410	-.34410
.036	.183	.23980	.61140	-.05320	-.05540	-.10860	-.23750	-.33960	-.32940
.034	4.255	.25370	.64290	-.04910	-.05810	-.10720	-.24230	-.35250	-.34480
	GRADIENT	.00022	-.00052	.00102	-.00053	.00049	-.00047	-.00104	.00001

RUDDER = 10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 229/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.894	-3.872	1.11840	.70560	-.08740	-.07210	-.15940	-.27700	-.34680	-.34250
3.895	.183	1.09540	.69990	-.08400	-.07340	-.15740	-.27220	-.34050	-.32630
3.906	4.246	1.11000	.70350	-.07890	-.07450	-.15330	-.28100	-.34770	-.33700
	GRADIENT	-.00103	-.00026	.00105	-.00030	.00075	-.00049	-.00011	.00058

RUDDER = 10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX38) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0330

RUN NO. 230/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
7.922	-3.861	1.68940	.70800	-.12600	-.09190	-.21790	-.31290	-.35810	-.34700
7.892	.182	1.68510	.70690	-.12520	-.09350	-.21870	-.31310	-.35450	-.33950
7.830	4.245	1.67160	.70680	-.11670	-.09290	-.20960	-.31570	-.35270	-.34350
	GRADIENT	-.00207	-.00015	.00115	-.00012	.00102	-.00035	.00067	.00043

RUDDER = 10.000  
 BDFLAP = 16.300  
 ELVN-R = 10.000  
 MACH = 1.900

## PARAMETRIC DATA

RUN NO. 231/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
11.870	-3.851	1.88790	.70560	-.17200	-.11180	-.28380	-.35020	-.37100	-.36150
11.880	.187	1.89620	.70600	-.16620	-.11150	-.27770	-.34920	-.36660	-.35430
11.873	4.255	1.86690	.70460	-.16530	-.10990	-.27420	-.35370	-.37000	-.36320
	GRADIENT	-.00260	-.00012	.00083	.00036	.00118	-.00043	.00012	-.00021

RUN NO. 232/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
15.852	-3.829	1.88110	.70160	-.21180	-.12450	-.33620	-.37780	-.36820	-.37310
15.866	.185	1.87520	.70100	-.21170	-.12520	-.33690	-.37960	-.37450	-.37010
15.858	4.285	1.85890	.70150	-.20100	-.12680	-.32790	-.38820	-.37440	-.37440
	GRADIENT	-.00274	-.00001	.00134	-.00028	.00103	-.00128	-.00076	-.00016

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX39) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0330

RUN NO. 233/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
-3.991	-3.847	-7.5570	.76760	-.04300	-.03080	-.07380	-.22520	-.37580	-.38460
-3.979	.190	-7.7460	.77460	-.03840	-.02760	-.06600	-.22940	-.36770	-.36370
-3.988	4.277	-7.5530	.76750	-.03210	-.02640	-.05860	-.22440	-.37300	-.37820
	GRADIENT	.00006	-.00002	.00134	.00054	.00187	.00010	.00034	.00078

RUDDER = 10.000  
 BDFLAP = 16.300  
 ELVN-R = 10.000  
 MACH = 1.250

## PARAMETRIC DATA

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX39) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 234/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.058	-3.868	.28900	.63180	-.06650	-.04930	-11590	-.25660	-37210	-36780
.062	.177	.28160	.64510	-.06170	-.05190	-11370	-.25620	-37250	-35720
.021	4.254	.29530	.64040	-.05400	-.05320	-10720	-.26190	-39280	-38080
	GRADIENT	-.00045	.00107	.00154	-.00048	.00107	-.00065	-.00255	-.00161

RUN NO. 235/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.934	-3.873	1.22190	.71020	-.09180	-.07380	-16560	-.29650	-39510	-38330
3.935	.169	1.19500	.70710	-.08400	-.07640	-16040	-.29710	-39720	-38830
3.939	4.242	1.22230	.71220	-.07870	-.07890	-15760	-.30280	-40070	-38350
	GRADIENT	.00011	.00025	.00161	-.00062	.00099	-.00078	-.00069	-.00003

RUN NO. 236/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.936	-3.863	1.76550	.71110	-.12290	-.09320	-21610	-.32810	-41270	-39830
7.697	.182	1.77670	.71140	-.12040	-.09740	-21780	-.33110	-42080	-39320
7.678	4.243	1.79370	.71390	-.11110	-.10050	-21160	-.33670	-41520	-40420
	GRADIENT	.00001	.00033	.00146	-.00090	.00056	-.00106	-.00031	-.00073

RUN NO. 237/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.869	-3.849	1.98430	.70680	-.15850	-.11460	-27310	-.35710	-42770	-40890
11.813	.187	1.96560	.70710	-.15540	-.11290	-26820	-.35910	-43250	-42200
11.866	4.252	1.97900	.70750	-.14940	-.11650	-26590	-.36390	-42650	-41930
	GRADIENT	-.00056	.00009	.00112	-.00024	.00089	-.00047	.00015	-.00128

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.250

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX40) ( 03 FEB 76 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
BOFLAP = 16.300 ELVN-L = 10.000  
ELVN-R = 10.000 MACH = 1.100

RUN NO. 238/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
-3.999	-3.842	-84980	.74030	-.06940	-.04450	-.11390	-.25830	-43970	-42130
-3.937	.194	-.88940	.74170	-.06260	-.04050	-.10300	-.27190	-42940	-42780
-3.996	4.277	-.85950	.73970	-.05190	-.03160	-.09350	-.25820	-44350	-44540
	GRADIENT	-.00106	-.00007	.00216	.00159	.00375	.00002	-.00047	-.00297

RUN NO. 239/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
.015	-3.957	.32370	.68750	-.08110	-.04750	-.12870	-.27720	-43430	-42760
.018	.181	.30390	.66810	-.08970	-.04070	-.11040	-.28200	-42730	-41550
.012	4.250	.33230	.70490	-.05990	-.03570	-.09560	-.27860	-44200	-42250
	GRADIENT	.00114	.00215	.00261	.00145	.00402	-.00017	-.00095	.00063

RUN NO. 240/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
3.919	-3.865	1.35280	.71730	-.08950	-.06130	-.15080	-.30190	-44440	-43520
3.917	.178	1.36620	.71770	-.06970	-.05960	-.12930	-.30280	-45260	-42990
3.924	4.244	1.40730	.72090	-.05810	-.06110	-.11920	-.30220	-45960	-42030
	GRADIENT	.00179	.00044	.00387	.00202	.00390	-.00004	-.00191	.00184

RUN NO. 241/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
7.901	-3.860	1.92640	.71390	-.11060	-.08540	-.19600	-.32180	-45880	-45500
7.905	.181	1.94180	.71470	-.09010	-.08500	-.17510	-.32240	-47600	-44700
7.904	4.239	1.92460	.71480	-.08360	-.08550	-.16930	-.32730	-48320	-45140
	GRADIENT	.00131	.00012	.00333	-.00002	.00330	-.00068	-.00301	.00044

RUN NO. 242/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
11.906	-3.844	2.04630	.70260	-.14920	-.10930	-.25860	-.33840	-48450	-48970
11.808	.188	2.04630	.70250	-.14030	-.10830	-.24860	-.33920	-47480	-47350
11.655	4.250	2.04630	.70400	-.12660	-.10500	-.23460	-.34450	-47400	-46840
	GRADIENT	.00015	.00017	.00242	.00053	.00297	-.00075	.00130	.00263

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX41) : 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LPEF = 474.0000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER =  
BDFLAP =  
ELVN-R =

SPDBRK = 85.000  
ELVN-L = 10.000  
MACH = .900

## PARAMETRIC DATA

RUN NO. 243/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.937	-3.840	-1.00710	.61820	-.02610	-.01490	-.04100	-.19090	-.37820	-.41060
-3.931	.163	-1.04500	.63210	-.02030	-.01730	-.03760	-.15470	-.37570	-.40390
-3.992	4.274	-1.06760	.62740	-.01670	-.01830	-.03700	-.18990	-.36800	-.39560
	GRADIENT	-.00745	.00113	.00091	-.00042	.00049	.00013	.00126	.00185

RUN NO. 244/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.052	-3.853	.59230	.78570	-.02010	-.00930	-.02930	-.19310	-.35010	-.38310
.055	.162	.53220	.76710	-.01250	-.01120	-.02370	-.19000	-.34590	-.36500
.070	4.253	.55340	.77750	-.00990	-.01320	-.02310	-.19050	-.36560	-.37660
	GRADIENT	-.00238	-.00101	.00126	-.00048	.00076	.00332	-.00068	.00090

RUN NO. 245/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.947	-3.868	2.03510	.71390	-.02730	-.02220	-.04950	-.19530	-.35810	-.37340
4.018	.184	2.01990	.70950	-.01440	-.02140	-.03570	-.19380	-.34680	-.37110
4.018	4.245	2.04810	.71250	-.01010	-.02300	-.03310	-.19510	-.35910	-.36590
	GRADIENT	.00160	-.00017	.00212	-.00010	.00202	.00002	-.00012	.00060

RUN NO. 246/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.915	-3.851	2.49720	.70060	-.05720	-.05230	-.10950	-.20290	-.35540	-.37500
7.925	.181	2.52390	.69990	-.04430	-.05350	-.09790	-.20110	-.35800	-.37320
7.877	4.247	2.54520	.70170	-.02610	-.05220	-.07830	-.20270	-.35740	-.34230
	GRADIENT	.00592	.00014	.00384	.00001	.00385	.00002	-.00025	.00416

RUN NO. 247/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.893	-3.850	2.44930	.69090	-.10090	-.07550	-.17650	-.20250	-.35920	-.38130
11.849	.191	2.47390	.68370	-.06860	-.07540	-.16500	-.19520	-.36200	-.37280
11.881	4.259	2.45200	.69200	-.07350	-.07440	-.14800	-.20040	-.36430	-.36940
	GRADIENT	.00008	.00014	.00338	.00014	.00352	.00026	.00060	.00258



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TABULATED FORCE DATA - 01148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(REBX42) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .500

RUN NO. 248/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CPI96	CPI97
-4.049	-7.852	-48040	.37060	-.01650	-.01390	-.03240	-.13510	-.34430	-.38140
-3.971	-3.842	-53930	.45970	-.01380	-.01250	-.02630	-.13770	-.34440	-.37950
-3.523	.191	-56160	.48800	-.01010	-.01120	-.02130	-.14270	-.36310	-.38070
-3.993	4.273	-59300	.48780	-.00730	-.00950	-.01690	-.13910	-.35410	-.34970
-3.939	8.343	-50270	.39750	-.00510	-.00800	-.01310	-.13710	-.36150	-.35570
	GRADIENT	-0.0716	.00346	.00080	.00036	.00116	-.00017	-.01242	-.00358

RUN NO. 249/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CPI96	CPI97
-0.003	-7.885	1.11310	.78340	-.01990	-.01820	-.03910	-.14450	-.32630	-.37400
.104	-3.860	1.03300	.77040	-.01570	-.01730	-.03300	-.14340	-.33310	-.37320
.114	.130	.94380	.76380	-.01070	-.01650	-.02720	-.14260	-.35170	-.37120
.111	4.251	.93330	.77030	-.00800	-.01580	-.02390	-.14350	-.35920	-.32960
.040	8.310	1.14920	.78180	-.00600	-.01580	-.02170	-.14350	-.35760	-.34550
	GRADIENT	-0.0550	-.00001	.00095	.00018	.00113	.00005	-.00322	-.00538

RUN NO. 250/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CPI96	CPI97
4.041	-7.639	2.40430	.70380	-.02720	-.02710	-.05430	-.14950	-.33270	-.35920
3.959	-3.960	2.36400	.70340	-.01960	-.02810	-.04770	-.14640	-.33520	-.35480
4.049	.193	2.26790	.69730	-.01460	-.02780	-.04240	-.14520	-.33140	-.34690
3.947	4.242	2.29320	.70280	-.01100	-.02760	-.03860	-.14790	-.35270	-.32480
3.985	8.292	2.47620	.70830	-.00840	-.02760	-.03600	-.15050	-.35210	-.33950
	GRADIENT	-0.0800	-.00007	.00106	.00006	.00112	.03006	-.00204	-.00454

RUN NO. 251/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CPI96	CPI97
7.905	-7.899	3.21790	.69960	-.03700	-.03750	-.07440	-.15600	-.33350	-.36980
8.038	-3.855	3.18250	.68710	-.03140	-.04100	-.07240	-.15390	-.32130	-.34850
8.035	.180	3.10230	.68420	-.02400	-.04220	-.06620	-.15050	-.31540	-.31820
8.035	4.244	3.12950	.69720	-.01660	-.04460	-.06330	-.15270	-.34460	-.31200
8.035	8.295	3.26840	.69140	-.01350	-.04490	-.05840	-.15650	-.35380	-.33570
	GRADIENT	-0.0727	.00001	.00158	-.00044	.03112	-.00023	-.00228	-.00450

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(FEBX-2) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MAC = .600

RUN NO. 252/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
11.910	-7.653	3.40590	.68100	-.05340	-.05000	-.10340	-.15550	-.32630	-.34050
11.930	-3.836	3.32310	.67950	-.05130	-.04190	-.10320	-.15770	-.32510	-.33590
11.965	.177	3.30380	.67730	-.04370	-.05300	-.09670	-.15390	-.31770	-.31630
11.976	4.252	3.28250	.68020	-.03410	-.05220	-.09030	-.15510	-.32940	-.31050
12.034	8.318	3.40350	.68220	-.02300	-.05590	-.08490	-.15670	-.32870	-.31590
	GRADIENT		.00008	.00213	-.00053	.00160	-.00018	-.00178	.00314

AMES 11-073(0A148) -140A/B/C/R ORBITER

(FEBX-3) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MAC = .900

RUN NO. 253/ 0 RN/L = 3.67 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
-4.070	-3.850	-.82300	.47310	-.04060	-.01630	-.05690	-.21960	-.36360	-.37220
-4.069	.187	-.91420	.51040	-.03080	-.01830	-.04910	-.22780	-.36570	-.37860
-4.078	4.272	-.92340	.50110	-.02650	-.01690	-.04330	-.21940	-.36370	-.37710
	GRADIENT		.00344	.00173	-.00007	.00167	.00003	-.00001	-.00060

RUN NO. 254/ 0 RN/L = 3.65 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
-0.029	-3.865	.98900	.65410	-.03720	-.00940	-.04660	-.22330	-.36370	-.35520
-.015	.185	.94100	.65640	-.02420	-.01130	-.03550	-.22160	-.34250	-.34970
-.021	4.247	.94480	.85520	-.01910	-.01340	-.03250	-.22610	-.35130	-.35620
	GRADIENT		.00014	.00223	-.00049	.00174	-.00035	.00153	-.00123

RUN NO. 255/ 0 RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
3.931	-3.870	2.49010	.74650	-.03840	-.02270	-.06110	-.22860	-.36280	-.35570
3.931	.185	2.45690	.74330	-.02530	-.02200	-.04730	-.22740	-.34580	-.34530
3.933	4.242	2.48600	.74690	-.01620	-.02200	-.03340	-.23340	-.34900	-.35180
	GRADIENT		.00004	.00274	.00009	.00282	-.00759	.00182	.00048

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX43) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 256/ 0

RN/L =

3.62

GRADIENT INTERVAL =

-5.00/ 5.00

ALPHA  
 7.938  
 8.006  
 8.004

BETA  
 -3.666  
 .180  
 4.244

GRADIENT

LU/DU  
 2.82370  
 2.85440  
 2.85770

XCP/L  
 .72280  
 .72180  
 .72320

CHEI  
 -.06550  
 -.04500  
 -.03130

CHEO  
 -.05320  
 -.05430  
 -.05230

CHETOT  
 -.11880  
 -.10330  
 -.06360

CHZF  
 -.23770  
 -.23630  
 -.24120

CP196  
 -.36070  
 -.36510  
 -.35540

CP197  
 -.35460  
 -.34950  
 -.34540

RUN NO. 257/ 0

RN/L =

3.61

GRADIENT INTERVAL =

-5.00/ 5.00

ALPHA  
 11.977  
 11.923  
 11.978

BETA  
 -3.653  
 .192  
 4.261

GRADIENT

LU/DU  
 2.63430  
 2.65650  
 2.61980

XCP/L  
 .70850  
 .70730  
 .71010

CHEI  
 -.12460  
 -.10200  
 -.06500

CHEC  
 -.07590  
 -.07540  
 -.07550

CHETOT  
 -.20060  
 -.17740  
 -.16050

CHZF  
 -.24370  
 -.24250  
 -.25050

CP195  
 -.37220  
 -.36260  
 -.38330

CP197  
 -.35500  
 -.34740  
 -.34130

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX44) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 258/ 0

RN/L =

4.63

GRADIENT INTERVAL =

-5.00/ 5.00

ALPHA  
 -4.010  
 -3.934  
 -3.935

BETA  
 -7.850  
 -3.842  
 .183

GRADIENT

LU/DU  
 -1.9150  
 -2.3430  
 -3.4570

XCP/L  
 -.48320  
 -.07230  
 .02290

CHLi  
 -.02700  
 -.02110  
 -.01640

CHEO  
 -.01170  
 -.01020  
 -.00890

CHETOT  
 -.03870  
 -.03130  
 -.02530

CHZF  
 -.16920  
 -.17000  
 -.17240

CP195  
 -.32070  
 -.31160  
 -.31120

CP197  
 -.34190  
 -.33980  
 -.34720

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 YACH = .900

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 YACH = .600

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 258/ 0

RN/L =

4.63

GRADIENT INTERVAL =

-5.00/ 5.00

ALPHA  
 -4.010  
 -3.934  
 -3.935

BETA  
 -7.850  
 -3.842  
 .183

GRADIENT

LU/DU  
 -1.9150  
 -2.3430  
 -3.4570

XCP/L  
 -.48320  
 -.07230  
 .02290

CHLi  
 -.02700  
 -.02110  
 -.01640

CHEO  
 -.01170  
 -.01020  
 -.00890

CHETOT  
 -.03870  
 -.03130  
 -.02530

CHZF  
 -.16920  
 -.17000  
 -.17240

CP195  
 -.32070  
 -.31160  
 -.31120

CP197  
 -.34190  
 -.33980  
 -.34720

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-07310A148) -140A/B/C/R ORBITER

DATE 08 MAY 76

(REBY44 ( 03 FEB 76 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.6000 IN. YMRP = .0000 IN. YO  
BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPCSRK = 55.000  
BDFLAP = 22.500 ELVN-L = 10.000  
ELVN-R = 10.000 MACH = .500

RUN NO. 259/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.033	-7.886	1.63590	.82420	-.02940	-.01920	-.04860	-.17700	-.31140	-.33090
.052	-3.556	1.54160	.82030	-.02330	-.01620	-.03950	-.17500	-.30560	-.32270
.053	.192	1.44170	.81900	-.01820	-.01520	-.03340	-.17210	-.31020	-.32900
.049	4.243	1.51410	.82450	-.01510	-.01450	-.02960	-.17500	-.31600	-.32060
.044	8.307	1.70500	.82250	-.01150	-.01340	-.02490	-.17910	-.32300	-.33270
	GRADIENT	-.00339	.00052	.00101	.00021	.00122	.00000	-.00128	.00026

RUN NO. 260/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.950	-7.902	2.99100	.73600	-.03500	-.02420	-.05920	-.18290	-.31200	-.32390
3.964	-3.684	2.93830	.73900	-.02900	-.02500	-.05420	-.17860	-.30620	-.31740
3.969	.199	2.84950	.72930	-.02260	-.02590	-.04850	-.17500	-.29200	-.30170
3.972	4.243	2.91970	.73450	-.01920	-.02330	-.04510	-.18080	-.30320	-.32090
3.992	8.230	3.03150	.73620	-.01510	-.02500	-.04010	-.18440	-.31930	-.31930
	GRADIENT	-.00232	.00020	.00121	-.00009	.00112	-.00027	.00037	.00043

RUN NO. 261/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
8.025	-7.890	3.70500	.71040	-.04560	-.03370	-.07950	-.19100	-.31750	-.32800
8.035	-3.859	3.67700	.70710	-.03750	-.03680	-.07430	-.18550	-.29050	-.30280
8.040	.178	3.62930	.70450	-.03120	-.03940	-.07050	-.18430	-.28870	-.29380
8.039	4.241	3.65690	.70810	-.02790	-.04000	-.06790	-.18670	-.30510	-.32220
8.038	8.285	3.77000	.71020	-.02270	-.03940	-.06210	-.18360	-.34270	-.30890
	GRADIENT	-.00247	.00012	.00118	-.00039	.00079	-.00015	-.00180	.00007

RUN NO. 262/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
12.021	-7.852	3.70000	.69610	-.06710	-.04690	-.11400	-.19160	-.30980	-.33730
11.932	-3.840	3.63320	.69400	-.05820	-.04730	-.10550	-.19140	-.29580	-.30660
11.946	.176	3.61710	.69240	-.05090	-.04920	-.10010	-.18860	-.30630	-.29020
11.941	4.247	3.62590	.69360	-.03910	-.05170	-.09110	-.19310	-.32970	-.30720
11.928	8.307	3.73930	.69760	-.03350	-.05270	-.08620	-.19310	-.31810	-.31160
	GRADIENT	-.00090	.00020	.00233	-.00054	.00178	-.00021	-.00420	.00016

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX45) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .900

RUN NO. 263/ 0 RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.961	-3.852	-1.45500	.63080	-.00460	.00650	.00190	-.21460	-.35770	-.35330
-3.932	.188	-1.44130	.63550	.00570	.01100	.01670	-.22280	-.35440	-.35420
-3.942	4.270	-1.45510	.62530	.01320	.01320	.02640	-.21420	-.35330	-.35220
	GRADIENT	.00010	-.00068	.00219	.00082	.00302	.00005	.00047	-.00110

RUN NO. 264/ 0 RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.010	-3.868	.39320	.82290	.00800	.01490	.02290	-.21780	-.36040	-.34360
.025	.185	.40340	.80340	.01700	.01640	.03340	-.21870	-.34810	-.35480
.019	4.247	.41250	.83380	.02100	.01650	.03750	-.22070	-.35750	-.34790
	GRADIENT	.00176	.00135	.00160	.00020	.00180	-.00036	.00036	-.00053

RUN NO. 265/ 0 RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.946	-3.873	2.06110	.70030	.01130	.01370	.02500	-.22400	-.34710	-.33950
4.002	.184	2.05490	.69570	.02430	.01290	.03710	-.22200	-.33780	-.33080
3.937	4.239	2.08650	.70310	.03090	.00970	.04070	-.22720	-.35220	-.35330
	GRADIENT	.00313	.00035	.00242	-.00049	.00194	-.00039	-.00063	-.00170

RUN NO. 266/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.970	-3.868	2.65140	.68830	.00140	-.01430	-.01290	-.23130	-.35290	-.33730
7.979	.177	2.67440	.69650	.02140	-.01210	.00930	-.23140	-.34890	-.32570
7.978	4.243	2.65520	.68970	.02980	-.01170	.01810	-.23410	-.36390	-.34950
	GRADIENT	.00170	.00017	.00350	.00032	.00382	-.00035	-.00136	-.00151

RUN NO. 267/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.950	-3.856	2.58150	.68470	-.03930	-.03890	-.07820	-.24550	-.36130	-.35710
11.961	.178	2.60480	.68290	-.01940	-.03840	-.05780	-.24380	-.36010	-.34650
11.950	4.259	2.56740	.68580	-.00510	-.03670	-.04180	-.24470	-.38400	-.35670
	GRADIENT	-.00175	.00014	.00421	.00027	.00448	.00010	-.00280	.00004

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB-46) ( 03 FEB 76 )

## REFERENCE DATA

GREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 80FLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

RUN NO. 269/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-4.031	-7.851	-1.21990	.55690	.01050	.00970	.02020	-1.5840	-30710	-33630
-3.953	-3.833	-1.20390	.57490	.01390	.01120	.02520	-1.6030	-29870	-32740
-3.951	.188	-1.24400	.58960	.01720	.01240	.02960	-1.6300	-31050	-33220
-3.958	4.263	-1.22240	.57430	.02070	.01350	.03420	-1.5870	-30950	-30740
-3.973	8.335	-1.15360	.55020	.02410	.01460	.03860	-1.5580	-30630	-31620
	GRADIENT	-.00228	-.00008	.00084	.00028	.00111	.00020	-.00121	.00248

RUN NO. 269/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.060	7.869	.92610	.79720	.01010	.00880	.01890	-1.16510	-33610	-32990
.070	-3.865	.74430	.78430	.01530	.00950	.01490	-1.16250	-30300	-32780
.068	.181	.64280	.77990	.01910	.01000	.01910	-1.16060	-29850	-31370
.063	4.248	.72640	.79370	.02220	.01000	.03220	-1.16320	-30630	-32600
	8.306	.63190	.79430	.02520	.01010	.03530	-1.16580	-31050	-30730
	GRADIENT	-.00219	.00116	.00085	.00006	.00091	-.00009	-.00041	.00392

RUN NO. 270/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
4.012	-7.901	2.52230	.69630	.00620	.00250	.00870	-1.17370	-30580	-31520
4.016	-3.862	2.48970	.69180	.01330	.00210	.01540	-1.16860	-30630	-31610
4.027	.191	2.40130	.68500	.01810	.00300	.02110	-1.16340	-28500	-29410
4.030	4.239	2.47500	.69310	.02120	.00270	.02380	-1.17000	-30130	-30750
4.035	8.288	2.66210	.69710	.02490	.00210	.02700	-1.17340	-31180	-30620
	GRADIENT	-.00182	.00016	.00098	.00007	.00104	-.00017	.00062	.00106

RUN NO. 271/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.896	-7.892	3.57490	.69140	-.00280	-.00650	-.00930	-1.17840	-31470	-32960
8.007	-3.861	3.52900	.67800	.00260	-.01160	-.00900	-1.17480	-29300	-29810
8.012	.176	3.51630	.67360	.01130	-.01300	-.00160	-1.17010	-28410	-29550
8.012	4.243	3.55430	.67790	.01610	-.01250	.00370	-1.17310	-29940	-29480
6.009	8.293	3.68290	.68060	.02070	-.01290	.00780	-1.17670	-31210	-30050
	GRADIENT	.00309	-.00001	.00167	-.00011	.00157	.00021	-.00079	.00040

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(REBX46) ( 03 FEB 76 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = .000 SPD3RK = 55.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 22.500 ELVN-L = 4.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 4.000 MACH = .600  
 SCALE = .0300

RUN NO. 272/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHTOT	CHBF	CP196	CP197
11.987	-7.852	3.75870	.67460	-0.0850	-0.02120	-0.03970	-0.18320	-0.29740	-0.32350
12.008	-3.842	3.69060	.67130	-0.01310	-0.02410	-0.03720	-0.18150	-0.28860	-0.31010
12.016	.174	3.67540	.66830	-0.00700	-0.02370	-0.03060	-0.17860	-0.28590	-0.28430
11.917	4.245	3.71350	.67150	.00320	-0.02380	-0.02060	-0.17850	-0.29560	-0.27380
11.904	8.309	3.83490	.67450	.00800	-0.02580	-0.01780	-0.17890	-0.30130	-0.29210
	GRADIENT	.00255	.00003	.00202	.00004	.00205	.00036	-0.00087	-0.00448

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX47) ( 03 FEB 76 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = -10.000 SPD3RK = 85.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = 4.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 4.000 MACH = 1.400  
 SCALE = .0300

RUN NO. 273/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHTOT	CHBF	CP196	CP197
-4.021	-3.852	-0.87660	.79050	.04210	-0.00400	.03810	-0.18650	-0.34910	-0.36120
-4.015	.189	-0.88790	.79390	.05210	-0.00350	.04850	-0.19220	-0.34280	-0.34600
-4.023	4.275	-0.86830	.78750	.06230	-0.00160	.06070	-0.18630	-0.34310	-0.34740
	GRADIENT	.00103	-0.00037	.00249	.00030	.00278	.00003	.00074	.00169

RUN NO. 274/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHTOT	CHBF	CP196	CP197
-0.011	-3.871	.04810	-0.62890	.01230	-0.02300	-0.01070	-0.21720	-0.34630	-0.35260
-0.002	.186	.05460	-0.51490	.02040	-0.02830	-0.00790	-0.21800	-0.34280	-0.33650
-0.007	4.251	.06970	-0.17650	.02830	-0.03100	-0.00270	-0.21850	-0.35120	-0.35070
	GRADIENT	.00254	.05571	.00197	-0.00098	.00093	-0.00017	-0.00050	.00023

RUN NO. 275/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHTOT	CHBF	CP196	CP197
3.927	-3.876	.97610	.65900	-0.01770	-0.04110	-0.05880	-0.25720	-0.34650	-0.33250
3.927	.191	.96080	.65630	-0.01310	-0.04710	-0.06020	-0.25380	-0.34170	-0.32630
3.930	4.244	.99760	.65530	-0.00680	-0.05010	-0.05700	-0.26150	-0.35780	-0.34980
	GRADIENT	.00264	.00078	.00134	-0.00111	.00022	-0.00053	-0.00139	-0.00213

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(REBX47) ( 03 FEB 76 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = -10.000  
 BDFLAP = 16.300  
 ELVN-R = 4.000

SPDBRK = 85.000  
 ELVN-L = 4.000  
 MACH = 1.400

RUN NO. 276/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 7.863  
 7.934  
 7.994

BETA  
 -3.871  
 .174  
 4.239  
 GRADIENT  
 .00231

LU/DU  
 1.59980  
 1.60460  
 1.61950  
 .00231

XCP/L  
 .68090  
 .68180  
 .68370  
 .00035

CHEI  
 -.05120  
 -.04660  
 -.04090  
 .00128

CHEO  
 -.05720  
 -.06120  
 -.06410  
 -.00085

CHETOT  
 -.10830  
 -.10770  
 -.10490  
 .00042

CHBF  
 -.29620  
 -.29310  
 -.29510  
 .00014

CP196  
 -.35850  
 -.35000  
 -.35950  
 -.00014

CP197  
 -.35970  
 -.33380  
 -.34260  
 .00210

RUN NO. 277/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 11.867  
 11.873  
 11.868

BETA  
 -3.859  
 .176  
 4.257  
 GRADIENT  
 -.00032

LU/DU  
 1.85740  
 1.86330  
 1.85480  
 -.00032

XCP/L  
 .68750  
 .68830  
 .68780  
 .00004

CHEI  
 -.10080  
 -.09120  
 -.09550  
 .03065

CHEO  
 -.07920  
 -.07670  
 -.07350  
 .00070

CHETOT  
 -.17990  
 -.16800  
 -.16900  
 .00134

CHBF  
 -.33080  
 -.32890  
 -.32820  
 .00032

CP196  
 -.36870  
 -.35890  
 -.36850  
 .00002

CP197  
 -.37180  
 -.35110  
 -.35370  
 .00222

RUN NO. 278/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 15.839  
 15.851  
 15.843

BETA  
 -3.834  
 .174  
 4.283  
 GRADIENT  
 -.00064

LU/DU  
 1.86770  
 1.87400  
 1.86260  
 -.00064

XCP/L  
 .68710  
 .69500  
 .69720  
 .00001

CHEI  
 -.14570  
 -.14430  
 -.13830  
 .00091

CHEO  
 -.03140  
 -.03180  
 -.03040  
 .07012

CHETOT  
 -.23710  
 -.23510  
 -.22870  
 .00104

CHBF  
 -.36410  
 -.36630  
 -.36390  
 .00003

CP196  
 -.38510  
 -.38650  
 -.38300  
 .00026

CP197  
 -.39800  
 -.37480  
 -.37300  
 .00307

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = -10.000  
 BDFLAP = 16.300  
 ELVN-R = 4.000

SPDBRK = 85.000  
 ELVN-L = 4.000  
 MACH = 1.250

RUN NO. 279/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 -4.024  
 -4.006  
 -4.015

BETA  
 -3.849  
 .183  
 4.273  
 GRADIENT  
 .00171

LU/DU  
 -1.01330  
 -1.02620  
 -.59950  
 .00171

XCP/L  
 .80390  
 .80790  
 .80100  
 -.00036

CHEI  
 .03580  
 .04390  
 .05260  
 .00207

CHEO  
 .01020  
 .01020  
 .00920  
 -.00012

CHETOT  
 .04590  
 .05410  
 .06180  
 .00196

CHBF  
 -.19810  
 -.20640  
 -.20700  
 -.00109

CP196  
 -.39260  
 -.37500  
 -.39240  
 -.00121

CP197  
 -.39410  
 -.38100  
 -.39950  
 -.00055

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX48) ( 03 FEB 76 )



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 161

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX48) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 280/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.012	-3.869	.04580	-1.03800	.01230	-.00960	.00260	-.23080	-.37790	-.37470
.020	.189	.03450	-1.68990	.02170	-.01460	.00710	-.23100	-.37890	-.37450
.014	4.249	.04740	-.89500	.03140	-.01900	.01250	-.23440	-.39310	-.38950
	GRADIENT	.00020	.01763	.00235	-.00116	.00122	-.00044	-.00187	-.00182

RUN NO. 281/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.961	-3.873	1.04530	.65620	-.01230	-.03240	-.04470	-.26850	-.38870	-.38290
3.960	.185	1.03040	.65640	-.00480	-.03790	-.04280	-.26910	-.38620	-.37570
3.964	4.240	1.06380	.66280	.00450	-.04260	-.03810	-.27560	-.39340	-.38980
	GRADIENT	.00228	.00081	.00207	-.00126	.00081	-.00088	-.00058	-.00085

RUN NO. 282/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.898	-3.868	1.69810	.68330	-.04440	-.05200	-.09650	-.30890	-.41270	-.40840
8.000	.178	1.66340	.68370	-.03360	-.05850	-.09210	-.30610	-.39930	-.38300
8.003	4.235	1.65900	.68340	-.02540	-.06320	-.08860	-.30770	-.41660	-.39900
	GRADIENT	-.00112	.00001	.00234	-.00138	.00097	.00015	-.00048	.00116

RUN NO. 283/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.933	-3.854	1.93920	.68610	-.08010	-.08080	-.16090	-.33930	-.42900	-.43760
11.941	.176	1.95060	.68750	-.07480	-.07640	-.15130	-.33790	-.42200	-.41200
11.936	4.253	1.93180	.68620	-.06980	-.07610	-.14580	-.33930	-.41900	-.40990
	GRADIENT	-.00092	.00001	.00127	.00058	.00186	-.00000	.00123	.00341

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.250

(REBX49) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.100

RUN NO. 284/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
-4.022	-3.848	-1.17230	.78550	.01620	.00880	.01700	-.23100	-.42610	-.42120
-4.022	.189	-1.19930	.78240	.01960	.00310	.02260	-.24980	-.43160	-.43630
-4.029	4.271	-1.17270	.77920	.02170	.01270	.03440	-.23940	-.44810	-.45340
	GRADIENT	-.00004	-.00078	.00068	.00147	.00214	-.00103	-.00271	-.00397

RUN NO. 285/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
.025	-3.866	.02160	-3.10700	.00170	.00790	.00960	-.24490	-.41190	-.41280
.030	.186	-.01700	6.26190	.01050	.00970	.02020	-.25410	-.41750	-.41400
.025	4.247	.02570	-2.29780	.01630	.00700	.02330	-.25300	-.43330	-.42830
	GRADIENT	.00051	.09592	.00180	-.00011	.00169	-.00100	-.00264	-.00191

RUN NO. 286/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
3.955	-3.867	1.19050	.66270	-.00830	-.01160	-.01990	-.27070	-.43480	-.42760
3.996	.185	1.17020	.65930	.00920	-.01380	-.00460	-.27660	-.42550	-.42370
3.999	4.239	1.17700	.66090	.02120	-.02090	.00030	-.27610	-.44290	-.43290
	GRADIENT	-.00165	-.00022	.00364	-.00115	.00249	-.00057	-.00100	-.00065

RUN NO. 287/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
7.942	-3.865	1.77520	.67620	-.02480	-.04530	-.07010	-.30150	-.45390	-.44870
8.042	.178	1.78500	.67970	-.00580	-.04840	-.05420	-.30430	-.45360	-.44840
8.044	4.232	1.75930	.67720	.00430	-.04850	-.04420	-.30330	-.47180	-.44810
	GRADIENT	-.00197	.00012	.00359	-.00040	.00320	-.00022	-.00221	-.00007

RUN NO. 288/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
11.090	-3.845	1.96930	.67800	-.07250	-.07680	-.14920	-.32950	-.48140	-.46770
11.986	.181	1.97370	.67950	-.06400	-.07660	-.14060	-.33150	-.47350	-.45660
11.982	4.250	1.95440	.67770	-.05250	-.07420	-.12670	-.33100	-.47480	-.46360
	GRADIENT	-.00185	-.00004	.00247	.00032	.00278	-.00018	-.00081	-.00050

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8X50) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .900

RUN NO. 289/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.039	-3.850	-1.61230	.70500	.01280	.00790	.02070	-.17180	-.36720	-.38340
-4.026	.188	-1.55600	.70740	.01800	.01120	.02920	-.18020	-.37630	-.40330
-4.037	4.267	-1.55930	.69690	.02360	.01250	.03620	-.17730	-.39170	-.40100
	GRADIENT	.00160	-.00100	.00133	.00057	.00191	-.00068	-.00302	-.00216

RUN NO. 290/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.032	-3.667	.02350	-2.05500	.02220	.01480	.03690	-.17360	-.34200	-.36900
.035	.184	.00440	-13.03200	.02540	.01430	.03970	-.17460	-.36500	-.37470
.028	4.249	.03450	-.77070	.02900	.01530	.04430	-.17660	-.38170	-.38090
	GRADIENT	.00135	.16097	.00084	.00006	.00091	-.00037	-.00469	-.00147

RUN NO. 291/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.999	-3.668	1.61450	.63780	.02640	.01170	.03810	-.17610	-.33110	-.33990
4.003	.184	1.57600	.63420	.03300	.01350	.04650	-.17600	-.34570	-.34740
4.005	4.239	1.64100	.64700	.03970	.01180	.05150	-.18060	-.36030	-.34090
	GRADIENT	.00327	.00114	.00164	.00001	.00165	-.00056	-.00360	-.00012

RUN NO. 292/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
8.040	-3.870	2.31080	.65260	.02020	-.01200	.00820	-.17990	-.33430	-.33420
8.045	.178	2.32340	.65340	.03540	-.00940	.02600	-.18110	-.33290	-.34120
8.043	4.236	2.32920	.65740	.04030	-.00980	.03060	-.18230	-.34250	-.33120
	GRADIENT	.00227	.00059	.00248	.00027	.00276	-.00030	-.00101	.00037

RUN NO. 293/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.980	-3.854	2.39790	.65990	-.01470	-.03530	-.05000	-.19010	-.33840	-.34360
11.999	.180	2.38020	.65840	.00070	-.03480	-.03410	-.19140	-.34860	-.35190
11.979	4.260	2.37530	.66070	.00900	-.03450	-.02550	-.19220	-.35600	-.33200
	GRADIENT	-.00278	.00010	.00292	.00010	.00302	-.00026	-.00217	.00144

(REBX51) ( 03 FEB 76 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

REFERENCE DATA

SREF = 2690.0000 S.I.F.T. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.2800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

RUN NO. 294/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
-3.976	-7.854	-1.33470	.66080	.01340	.00850	.02190	-.12490	-.33210	-.38180
-3.953	-3.844	-1.35500	.67770	.01690	.01020	.02710	-.12610	-.33310	-.37090
-3.955	.189	-1.37870	.67930	.02090	.01160	.03250	-.12930	-.33790	-.36810
-3.953	4.269	-1.34720	.66920	.02350	.01310	.03660	-.12650	-.35050	-.35670
-3.980	8.339	-1.33160	.65260	.02690	.01430	.04130	-.12490	-.32530	-.33300
	GRADIENT	.00098	-.00105	.00081	.00036	.00117	-.00005	-.00215	.00175

RUN NO. 295/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
.060	-7.891	.34150	.60790	.01350	.00750	.02100	-.12840	-.32700	-.35710
.070	-3.863	.25390	.51580	.01830	.00830	.02650	-.12670	-.32080	-.36320
.075	.165	.21560	.46040	.02190	.00880	.03070	-.12710	-.31490	-.35050
.070	4.248	.25580	.55100	.02490	.00910	.03400	-.12790	-.33550	-.33370
.066	8.300	.41800	.64220	.02820	.00950	.03770	-.12970	-.32810	-.32320
	GRADIENT	-.00087	.00435	.00081	.00010	.00091	-.00015	-.00181	.00354

RUN NO. 296/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
4.023	-7.921	1.91320	.64250	.01080	.00150	.01230	-.13300	-.32110	-.35070
4.027	-3.564	1.87180	.63710	.01640	.00140	.01780	-.13080	-.31950	-.35350
4.029	.191	1.83120	.63330	.02070	.00190	.02260	-.12720	-.30390	-.32080
4.031	4.239	1.63970	.64350	.02440	.00140	.02580	-.13270	-.33020	-.32220
4.035	8.279	2.06540	.65100	.02820	.00110	.02930	-.13550	-.32060	-.31850
	GRADIENT	.00344	.00079	.00093	.00000	.00099	-.00023	-.00132	.00386

RUN NO. 297/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
8.061	-7.886	3.04130	.64850	.00140	-.00760	-.00620	-.13920	-.31760	-.35140
8.070	-3.859	3.02430	.64730	.00290	-.00930	-.00240	-.13510	-.30780	-.32830
8.059	.180	2.99780	.64540	.01510	-.00950	.00560	-.13120	-.29760	-.30140
8.069	4.237	3.01660	.64520	.01930	-.01070	.00920	-.13390	-.30210	-.30270
8.063	8.264	3.15210	.65430	.02390	-.01110	.01280	-.14010	-.31790	-.32270
	GRADIENT	-.00095	.00020	.00161	-.00017	.00143	.00015	.00070	.00316

DATE 08 MAY 76  
 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX51) ( 03 FEB 76 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 298/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
12.002	-7.847	3.33350	.65280	-.01250	-.01930	-.03180	-.14320	-.31450	-.34630
12.007	-3.840	3.35650	.65000	-.00760	-.02170	-.02920	-.14120	-.29510	-.32640
12.017	.177	3.35170	.64750	-.00170	-.02090	-.02260	-.13750	-.29240	-.29490
12.024	4.250	3.34720	.65140	.00650	-.02310	-.01640	-.14120	-.30010	-.29590
12.010	8.307	3.32240	.65510	.01200	-.02540	-.01350	-.14160	-.29720	-.30190
	GRADIENT		.00017	.00178	-.00017	.00158	-.00000	-.00022	.00376

PARAMETRIC DATA  
 RUDDER = -10.000  
 BOFLAP = 16.300  
 ELVN-R = 4.000  
 SPOBRK = 85.000  
 ELVN-L = 4.000  
 MACH = .600

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX52) ( 03 FEB 76 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 299/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-4.050	-3.650	-1.00180	.76380	.04290	-.00410	.03880	-.18880	-.35190	-.36320
-4.043	.186	-1.01040	.76920	.05230	-.00380	.04850	-.19390	-.35250	-.35760
-4.048	4.268	-.93390	.76580	.05180	-.00170	.06010	-.18640	-.35440	-.36510
	GRADIENT	.00061	.00024	.00233	.00030	.00262	.00030	-.00031	-.00024

PARAMETRIC DATA  
 RUDDER = -10.000  
 BOFLAP = 16.300  
 ELVN-R = 4.000  
 SPOBRK = 55.000  
 ELVN-L = -4.000  
 MACH = 1.400

RUN NO. 300/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-0.027	-3.878	.00720	-6.31140	.01290	-.02300	-.01010	-.21320	-.34790	-.35470
-0.013	.172	-.00350	69.90300	.02140	-.02790	-.03650	-.21670	-.35230	-.35410
-0.015	4.247	.02170	-1.49270	.02900	-.03050	-.00160	-.21610	-.36480	-.36860
	GRADIENT	.00179	.57430	.00188	-.03092	.00105	-.00336	-.00208	-.00171

PARAMETRIC DATA  
 RUDDER = -10.000  
 BOFLAP = 16.300  
 ELVN-R = 4.000  
 SPOBRK = 55.000  
 ELVN-L = -4.000  
 MACH = 1.400

RUN NO. 301/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.910	-3.886	1.03790	.67540	-.01690	-.04190	-.05580	-.24710	-.34770	-.34500
3.912	.174	1.03000	.67140	-.01230	-.04690	-.05920	-.24450	-.33330	-.32910
3.916	4.236	1.05590	.67760	-.00640	-.05010	-.05540	-.25140	-.35150	-.35000
	GRADIENT	.00220	.00027	.00129	-.00101	.00030	-.00053	-.00047	-.00062

PARAMETRIC DATA  
 RUDDER = -10.000  
 BOFLAP = 16.300  
 ELVN-R = 4.000  
 SPOBRK = 55.000  
 ELVN-L = -4.000  
 MACH = 1.400

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(REX52) 03 FEB 76 )

## REFERENCE DATA

SPREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XO  
 YMRP = 474.8000 IN. YMRP = .0000 IN. YO  
 ZMRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 302/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 7.922  
 7.930  
 7.931  
 GRADIENT

BETA  
 -3.876  
 .169  
 4.630  
 GRADIENT

LU/DU  
 1.71430  
 1.72230  
 1.73040  
 1.73850

XCP/L  
 .68830  
 .68730  
 .68630  
 .00002

CHEI  
 -.05120  
 -.04670  
 -.03770  
 .00155

CHEO  
 -.05780  
 -.06110  
 -.06200  
 -.00002

CHETOT  
 -.10900  
 -.10780  
 -.09970  
 .00115

CHEF  
 -.28510  
 -.28310  
 -.29010  
 -.00002

CP195  
 -.35850  
 -.34210  
 -.34730  
 .00132

CP197  
 -.35840  
 -.34280  
 -.34450  
 .00171

RUDDER = -10.000  
 BDFLAP = 16.300  
 ELVN-L = 4.000  
 ELVN-R = 55.000  
 MACH = -4.000  
 MACH = 1.400

RUN NO. 303/ 0 RN/L = 2.92 GRADIENT INTERVAL = 5.00/ 5.00

ALPHA  
 7.922  
 7.930  
 7.931  
 GRADIENT

BETA  
 -3.866  
 .167  
 4.628  
 GRADIENT

LU/DU  
 1.69750  
 1.69510  
 1.69280  
 1.69045

XCP/L  
 .69170  
 .69180  
 .69100  
 -.00009

CHEI  
 -.10070  
 -.09280  
 -.09870  
 .00148

CHEO  
 -.07810  
 -.07730  
 -.07590  
 .00002

CHETOT  
 -.17690  
 -.17010  
 -.16450  
 .00177

CHEF  
 -.31630  
 -.31800  
 -.32320  
 -.00002

CP195  
 -.35280  
 -.35230  
 -.35150  
 .00014

CP197  
 -.36120  
 -.35080  
 -.35530  
 .00072

RUN NO. 304/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 7.926  
 7.934  
 7.933  
 GRADIENT

BETA  
 -3.845  
 .165  
 4.624  
 GRADIENT

LU/DU  
 1.67520  
 1.67560  
 1.67830  
 1.68218

XCP/L  
 .69380  
 .69090  
 .68920  
 -.00008

CHEI  
 -.14500  
 -.14480  
 -.13670  
 .00103

CHEO  
 -.09330  
 -.09320  
 -.09280  
 .00006

CHETOT  
 -.23830  
 -.23800  
 -.22950  
 .00109

CHEF  
 -.35520  
 -.35720  
 -.35670  
 -.00018

CP195  
 -.37700  
 -.38220  
 -.37950  
 -.00030

CP197  
 -.39050  
 -.37350  
 -.37200  
 .00227

RUDDER = -10.000  
 BDFLAP = 16.300  
 ELVN-L = 4.000  
 ELVN-R = 55.000  
 MACH = -4.000  
 MACH = 1.250

## REFERENCE DATA

SPREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XO  
 YMRP = 474.8000 IN. YMRP = .0000 IN. YO  
 ZMRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 305/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
 7.926  
 7.934  
 7.933  
 GRADIENT

BETA  
 -3.860  
 .182  
 4.671  
 GRADIENT

LU/DU  
 1.67250  
 1.68370  
 1.68320  
 1.68304

XCP/L  
 .77470  
 .78200  
 .78130  
 .00003

CHEI  
 .03710  
 .04450  
 .05390  
 .00207

CHEC  
 .00590  
 .00290  
 .00330  
 -.00004

CHETOT  
 .04290  
 .04750  
 .05700  
 .00174

CHEF  
 -.19560  
 -.20090  
 -.20010  
 -.00055

CP195  
 -.42280  
 -.42650  
 -.43120  
 -.00103

CP197  
 -.42950  
 -.43180  
 -.43760  
 -.00058

RUDDER = -10.000  
 BDFLAP = 16.300  
 ELVN-L = 4.000  
 ELVN-R = 55.000  
 MACH = -4.000  
 MACH = 1.250

AMES 11-07310A148) -140A/B/C/R ORBITER

(REX53) 03 FEB 76 )

## PARAMETRIC DATA

SPREF = -10.000  
 BDFLAP = 16.300  
 ELVN-L = 4.000  
 ELVN-R = 55.000  
 MACH = -4.000  
 MACH = 1.250

(REBX53) ( 03 FEB 76 )

TABULATED FORCE DATA - 0A146 ( AMES 11-073-1 )  
AMES 11-07310A146 - 140A/B/C/R ORBITER

DATE 08 MAY 76

REFERENCE DATA

SPEF = 2630.000 SQ.FT.  
LREF = 474.800 IN.  
BREF = 936.600 IN.  
SCALE = .0300

XMRP = 1076.600 IN. X0  
YMRP = 0000 IN. Y0  
ZMRP = 375.000 IN. Z0

RUDDER =  
BOFLAP =  
ELVN-R =

SPDRK = 55.000  
ELVN-L = -4.000  
MACH = 1.250

PARAMETRIC DATA

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 306/ 0 RV/L = 3.01

CP195  
-42160  
-41770  
-43760  
-40154  
CP197  
-41620  
-42040  
-44050  
-40059

CHEI  
C1310  
C1780  
C2930  
C0193  
C00140  
C00053

BETA  
-3.621  
.178  
4.247  
GRADIENT  
00016  
62243

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 307/ 0 RV/L = 3.01

CP195  
-42160  
-41770  
-43760  
-40154  
CP197  
-41620  
-42040  
-44050  
-40059

CHEI  
C1310  
C1780  
C2930  
C0193  
C00140  
C00053

BETA  
-3.677  
.183  
4.232  
GRADIENT  
00079  
62243

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 308/ 0 RV/L = 3.01

CP195  
-42160  
-41770  
-43760  
-40154  
CP197  
-41620  
-42040  
-44050  
-40059

CHEI  
C1310  
C1780  
C2930  
C0193  
C00140  
C00053

BETA  
-3.876  
.169  
4.233  
GRADIENT  
00169  
62243

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 309/ 0 RV/L = 3.02

CP195  
-42160  
-41770  
-43760  
-40154  
CP197  
-41620  
-42040  
-44050  
-40059

CHEI  
C1310  
C1780  
C2930  
C0193  
C00140  
C00053

BETA  
-3.857  
.161  
4.245  
GRADIENT  
00054  
62243

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 309/ 0 RV/L = 3.02

CP195  
-42160  
-41770  
-43760  
-40154  
CP197  
-41620  
-42040  
-44050  
-40059

CHEI  
C1310  
C1780  
C2930  
C0193  
C00140  
C00053

BETA  
-3.857  
.161  
4.245  
GRADIENT  
00054  
62243

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX54) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 55.000  
 BCF LAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.100

RUN NO. 310/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.933	-3.853	-1.42580	.78110	.01770	.00120	.01890	-.21480	-.42320	-.41050
-3.931	.182	-1.42020	.77970	.02180	.00330	.02520	-.22830	-.42320	-.42050
-3.931	.4263	-1.37250	.77520	.02690	.01350	.04040	-.22070	-.43150	-.43450
	GRADIENT	.00659	-.00024	.00113	.00152	.00265	-.00072	-.00123	-.00296

RUN NO. 311/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.009	-3.873	-1.12840	1.42540	.00220	.00810	.01030	-.23310	-.41130	-.41550
.022	.176	-1.12700	1.52930	.01020	.01040	.02060	-.24040	-.41250	-.40720
.026	.4243	-.06020	1.73180	.01670	.00570	.02340	-.23540	-.42310	-.2590
	GRADIENT	.00595	.04395	.00179	-.00017	.00161	-.00078	-.00145	-.00104

RUN NO. 312/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.932	-3.873	1.11270	.64310	-.00340	-.01040	-.01680	-.25600	-.42500	-.41340
3.933	.171	1.11580	.64420	.00890	-.01240	-.00350	-.26210	-.42060	-.41620
3.943	.4232	1.16530	.65460	.02100	-.01820	.00230	-.26380	-.42430	-.42330
	GRADIENT	.00549	.00142	.00353	-.00035	.00265	-.00095	.00009	-.00110

RUN NO. 313/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.936	-3.871	1.79350	.67040	-.02700	-.04300	-.06990	-.28760	-.44860	-.44610
8.006	.170	1.82190	.67430	-.00410	-.04740	-.05150	-.29200	-.43710	-.43440
8.008	.4224	1.92830	.67560	.00580	-.04880	-.04210	-.29370	-.44650	-.44670
	GRADIENT	.00465	.00067	.00417	-.00072	.00343	-.00075	.00025	-.00002

RUN NO. 314/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.922	-3.854	2.02850	.67350	-.01250	-.07750	-.14990	-.31290	-.46120	-.46860
11.941	.173	2.05410	.67500	-.06110	-.07660	-.13770	-.31350	-.44520	-.44410
12.005	.4239	2.03340	.67550	-.05450	-.07550	-.13060	-.31910	-.45610	-.45980
	GRADIENT	.00130	.00035	.00222	.00025	.00246	-.00077	.00063	.00121



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) - 140A/B/C/R ORBITER

(REMARKS) ( 03 FEB 76 )

## REFERENCE DATA

SPEF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.6300 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6600 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUN NO. 315/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.955	-3.851	-2.13120	.71750	.00350	.00520	.00670	-16460	-33630	-35950
-3.902	.179	-2.04870	.72240	.01530	.01040	.02570	-16720	-33230	-35520
-3.952	4.252	-2.02170	.71340	.02260	.01340	.03630	-15770	-32410	-33280
	GRADIENT	.01347	-.00051	.00235	.00101	.00335	.00555	.00150	.00255

RUDDER = -10.000  
 BOFLAP = 16.300  
 ELVN-R = 4.000  
 MACH = 55.000  
 -4.000  
 .900

## PARAMETRIC DATA

RUN NO. 316/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP155	CP197
.074	-3.874	-2.26970	1.06590	.01790	.01390	.03180	-16420	-31620	-33870
.080	.167	-2.26010	1.11080	.02520	.01550	.04080	-16390	-32150	-32930
.057	4.244	-1.15730	1.26690	.02970	.01650	.04830	-15970	-32340	-32600
	GRADIENT	.01385	.02504	.00145	.00033	.00179	.00569	-.00108	.00188

RUN NO. 317/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP155	CP197
3.946	-3.879	1.57970	.62390	.02470	.01320	.03790	-17110	-31410	-32550
3.951	.176	1.57590	.61770	.03460	.01490	.04950	-16430	-32330	-31850
3.955	4.235	1.69560	.63340	.04100	.01320	.05420	-16250	-32830	-31150
	GRADIENT	.01429	.00080	.00201	-.00000	.00201	.00102	.00071	.00176

RUN NO. 318/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP156	CP197
7.933	-3.876	2.43950	.64810	.01970	-.01070	.00890	-17440	-30240	-30990
8.030	.173	2.45450	.64550	.03740	-.00370	.02770	-16730	-28720	-30730
8.015	4.230	2.48100	.64910	.04390	-.00940	.03450	-15750	-25420	-25410
	GRADIENT	.00511	.00012	.00297	.00015	.00316	.00081	.00101	.00195

RUN NO. 319/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP156	CP197
11.973	-3.851	2.50490	.65430	-.01370	-.03550	-.04920	-16510	-30720	-31480
11.937	.182	2.51270	.65170	.00390	-.03530	-.03130	-17620	-25570	-30410
12.005	4.250	2.51150	.65420	.01140	-.03420	-.02290	-17550	-25550	-31290
	GRADIENT	.00092	-.00001	.00309	.00016	.00324	.00117	.00132	.00223

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBXSE) : 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SFCBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .600

RUN NO. 320/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.044	-7.862	-2.12970	.67910	.01410	.00140	.01550	-1.1570	-29190	-31810
-3.971	-3.856	-2.07090	.69310	.01770	.00310	.02080	-1.1760	-29310	-32470
-3.944	.179	-2.02930	.69650	.02090	.00430	.02520	-1.1850	-29540	-32490
-3.952	4.259	-2.00250	.69000	.02400	.00590	.02990	-1.1490	-29000	-31620
-3.967	8.330	-1.96500	.68460	.02670	.00750	.03420	-1.1260	-28440	-31280
	GRADIENT	.00843	-.00038	.00078	.00035	.00112	.00033	.00038	.00105

RUN NO. 321/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-.082	-7.901	-.05380	1.75190	.01410	.00000	.01410	-1.2090	-29290	-32620
.093	-3.873	-.14040	1.28960	.01850	.00100	.01960	-1.1890	-28930	-32790
.095	.179	-.19260	1.17790	.02240	.00210	.02440	-1.1740	-29360	-31010
.092	4.242	-.11580	1.32090	.02530	.00250	.02780	-1.1740	-29360	-30500
.089	9.259	.04200	-.76800	.02820	.00310	.03140	-1.1760	-29490	-31240
	GRADIENT	.00255	.00387	.00083	.00018	.00101	.00017	.00055	.00195

RUN NO. 322/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
4.036	-7.914	1.91690	.62240	.01160	-.00620	.00540	-1.12710	-29380	-32230
4.041	-3.873	1.81920	.61030	.01690	-.00620	.01070	-1.12500	-28840	-32350
4.096	.178	1.77790	.60060	.02180	-.00560	.01620	-1.1880	-27450	-26510
3.977	4.232	1.85000	.61590	.02490	-.00480	.02010	-1.2160	-26500	-30560
4.011	8.279	2.03640	.62440	.02830	-.00520	.02310	-1.2390	-28140	-30400
	GRADIENT	.00380	.00069	.00099	.00017	.00116	.00042	.00042	.00221

RUN NO. 323/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
8.004	-7.903	3.32670	.64150	.00380	-.01140	-.00760	-1.13290	-29870	-31820
8.017	-3.872	3.19820	.63510	.00820	-.01510	-.00690	-1.13090	-28060	-31110
7.965	.165	3.20130	.63040	.01520	-.01690	-.00170	-1.2350	-26350	-26750
7.931	4.229	3.31800	.63740	.02090	-.01730	.00370	-1.2450	-26940	-28290
7.987	8.285	3.40670	.63950	.02470	-.01690	.00780	-1.13000	-28010	-29410
	GRADIENT	.01480	.00329	.00157	-.00027	.00131	.00079	.00138	.00224

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(REBX56) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .600

RUN NO. 324/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHTOT	CHBF	CP196	CP197
11.920	-7.867	3.77470	.64930	-.01000	-.02170	-.03170	-.13900	-.29890	-.32690
11.942	-3.850	3.66230	.64300	-.00940	-.02430	-.02970	-.13570	-.27240	-.29190
12.055	.165	3.63390	.63880	-.00020	-.02330	-.02350	-.12950	-.26350	-.26650
12.053	4.239	3.69320	.64450	.00830	-.02670	-.01840	-.13080	-.25370	-.26220
12.101	8.239	3.77600	.64790	.01260	-.02720	-.01460	-.13240	-.27010	-.27140
	GRADIENT	.00409	.00019	.00169	-.00030	.00140	.00060	.00231	.00367

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX57) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.400

RUN NO. 325/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHTOT	CHBF	CP196	CP197
-4.026	-3.843	-1.01570	.76440	.15690	.05040	.20730	-.18370	-.36010	-.37040
-3.938	.202	-1.01840	.76790	.16520	.04690	.21210	-.19340	-.35850	-.36440
-4.001	4.282	-1.02000	.76190	.17000	.04490	.21490	-.18620	-.35520	-.35840
	GRADIENT	-.00053	-.00031	.00161	-.00068	.00053	-.00030	.00060	.00148

RUN NO. 326/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHTOT	CHBF	CP196	CP197
-.015	-3.863	.00550	-7.41650	.12010	.01960	.13970	-.21330	-.36630	-.36960
-.021	.195	-0.01260	4.87190	.12530	.01440	.13970	-.21570	-.35310	-.35350
.016	4.262	-.00640	8.16500	.13030	.01270	.14300	-.21470	-.35000	-.34770
	GRADIENT	-.00146	1.91727	.00126	-.00055	.00041	-.00017	.00201	.00269

RUN NO. 327/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHTOT	CHBF	CP196	CP197
3.900	-3.867	1.02220	.67420	.08040	.00070	.08110	-.24870	-.35730	-.35630
4.005	.197	1.01900	.66990	.08450	-.00360	.08050	-.24540	-.34240	-.32530
3.907	4.252	1.02120	.67590	.09340	-.00480	.08860	-.24970	-.34970	-.34580
	GRADIENT	-.00012	.00013	.00160	-.00058	.00092	-.00012	.00094	.00130

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX57) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 328/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

BETA  
 -3.862  
 .187  
 4.251  
 GRADIENT

ALPHA  
 7.945  
 7.917  
 7.849

LU/DU  
 1.71700  
 1.71050  
 1.71110  
 -1.00073

XCP/L  
 .68880  
 .68730  
 .68900  
 .00002

CHEI  
 .04570  
 .05050  
 .05870  
 .00160

CHEO  
 -.01790  
 -.02030  
 -.02280  
 -.00060

CHETOT  
 .02780  
 .03030  
 .03590  
 .00100

CHBF  
 -.28940  
 -.28310  
 -.28580  
 .00044

CP196  
 -.34350  
 -.35430  
 -.35350  
 -.00038

CP197  
 -.34350  
 -.33930  
 -.35060  
 -.00088

RUN NO. 329/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

BETA  
 -3.847  
 .185  
 4.265  
 GRADIENT

ALPHA  
 11.907  
 11.890  
 11.884

LU/DU  
 1.94750  
 1.95370  
 1.95560  
 .00223

XCP/L  
 .68950  
 .69070  
 .69120  
 .00021

CHEI  
 -.00630  
 -.01010  
 -.01920  
 -.00159

CHEO  
 -.04530  
 -.03220  
 -.03100  
 .00097

CHETOT  
 -.04530  
 -.04220  
 -.05020  
 -.00061

CHBF  
 -.32380  
 -.32100  
 -.32200  
 .00022

CP196  
 -.37100  
 -.37430  
 -.37920  
 -.00161

CP197  
 -.37080  
 -.35750  
 -.35160  
 .00237

RUN NO. 330/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

BETA  
 -3.822  
 .187  
 4.292  
 GRADIENT

ALPHA  
 15.871  
 15.883  
 15.915

LU/DU  
 1.94930  
 1.95350  
 1.94880  
 -.00007

XCP/L  
 .68780  
 .69010  
 .68980  
 .00025

CHEI  
 -.05550  
 -.05760  
 -.05510  
 -.00032

CHEO  
 -.05020  
 -.04900  
 -.04660  
 .00044

CHETOT  
 -.10560  
 -.10670  
 -.10470  
 .00011

CHBF  
 -.35450  
 -.35790  
 -.35950  
 -.00062

CP196  
 -.37680  
 -.39010  
 -.39040  
 -.00167

CP197  
 -.37850  
 -.37770  
 -.37460  
 .00348

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX58) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 331/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

BETA  
 -3.834  
 .202  
 4.280  
 GRADIENT

ALPHA  
 -4.015  
 -4.012  
 -4.007

LU/DU  
 -1.17350  
 -1.22250  
 -1.19700  
 -.00288

XCP/L  
 .78230  
 .78500  
 .76090  
 -.00017

CHEI  
 .16270  
 .17490  
 .18520  
 .00277

CHEO  
 .08030  
 .07770  
 .07050  
 -.00121

CHETOT  
 .24300  
 .25260  
 .25570  
 .00156

CHBF  
 -.19610  
 -.20010  
 -.19740  
 -.00016

CP196  
 -.39900  
 -.37720  
 -.37990  
 .00235

CP197  
 -.40700  
 -.38950  
 -.37990  
 .00252

## PARAMETRIC DATA

RUDDER = 10.000  
 BDFLAP = 16.300  
 ELVN-R = -4.000

SPOBRK = 55.000  
 ELVN-L = 4.000  
 MACH = 1.250

DATE 08 MAY 76  
 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C/R ORBITTER

(REBX58) ( 03 FEB 76 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.250

RUN NO. 332/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.035	-3.858	-.03650	2.55680	.13470	.04600	.18070	-.22470	-.39830	-.40600
.040	.189	-.04240	2.48490	.14490	.03200	.17690	-.22390	-.37390	-.36700
.037	4.261	-.03520	2.66360	.14950	.02270	.17220	-.22500	-.38460	-.36540
	GRADIENT	.00041	.01196	.00182	-.00287	-.00105	-.00004	.00168	.00253

RUN NO. 333/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.928	-3.661	1.06480	.66430	.09990	.01290	.11280	-.25860	-.38890	-.38880
3.929	.192	1.04090	.66190	.10540	.00520	.11160	-.25990	-.38950	-.37500
3.933	4.251	1.06170	.66580	.11360	.00260	.11610	-.26190	-.38220	-.38280
	GRADIENT	-.00038	.00019	.00169	-.00127	.00041	-.00041	-.03041	.00074

RUN NO. 334/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.966	-3.855	1.76250	.69390	.06830	-.00970	.05860	-.29830	-.40570	-.39150
7.970	.187	1.76140	.68380	.07880	-.01290	.06580	-.29330	-.40610	-.39050
7.894	4.250	1.74760	.68360	.08150	-.01320	.06830	-.29330	-.41280	-.39670
	GRADIENT	-.00184	-.00004	.00163	-.00043	.00120	.00030	-.00088	-.00064

RUN NO. 335/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.923	-3.838	2.01470	.68510	.02220	-.02900	.00680	-.32880	-.42340	-.40490
11.931	.197	2.02440	.68560	.01730	-.02860	-.01140	-.32800	-.41650	-.40270
11.925	4.259	2.00370	.68400	.01720	-.02530	-.00810	-.32430	-.42350	-.40470
	GRADIENT	-.00136	-.00014	-.00062	.00046	-.00016	.00056	-.00001	.00002

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX59) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPD BRK = 55.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.100

RUN NO. 336/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-4.026	-3.831	-1.38770	.77260	.15100	.08090	.23180	-.21990	-.43560	-.43940
-3.894	.203	-1.42900	.77600	.16420	.08310	.24730	-.22870	-.41410	-.40730
-4.013	4.281	-1.44400	.77440	.17950	.09090	.27040	-.21670	-.41790	-.41850
	GRADIENT	-.00693	.00022	.00351	.00123	.00476	.00040	.00218	.00252

RUN NO. 337/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-0.051	-3.652	-1.0830	1.50330	.13490	.08540	.22030	-.23600	-.43160	-.43410
.053	.191	-1.16790	1.29150	.14810	.07650	.22460	-.24160	-.41730	-.40580
.049	4.255	-1.14640	1.32550	.15940	.05970	.21910	-.23750	-.42750	-.41770
	GRADIENT	-.00469	-.02190	.03302	-.00317	-.00015	.00006	.00050	.00202

RUN NO. 338/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.965	-3.853	1.13470	.65110	.11980	.04850	.16830	-.25790	-.43340	-.43420
3.964	.193	1.10490	.64710	.13260	.03730	.16990	-.26570	-.42780	-.41540
3.966	4.249	1.10430	.64670	.14410	.02770	.17170	-.26120	-.43470	-.42300
	GRADIENT	-.00375	-.00054	.00300	-.00257	.00042	-.00041	-.00016	.00138

RUN NO. 339/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.908	-3.848	1.77750	.67080	.09730	.00750	.10480	-.28720	-.46370	-.46300
7.912	.189	1.78890	.67160	.11170	.00350	.11520	-.29000	-.44090	-.43550
7.911	4.247	1.76530	.67060	.12240	.00520	.12760	-.29150	-.46200	-.44420
	GRADIENT	-.00152	-.00002	.00310	-.00028	.00282	-.00053	.00021	.00232

RUN NO. 340/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.969	-3.832	2.02420	.67450	.04910	-.01990	.02920	-.31960	-.46720	-.46290
11.872	.197	2.03630	.67370	.04890	-.01940	.02950	-.31340	-.45310	-.44530
11.865	4.258	2.00790	.67360	.05040	-.01580	.04460	-.31670	-.47000	-.45280
	GRADIENT	-.00202	-.00011	.00140	.00051	.00191	.00036	-.00035	.00127

DATE 08 MAY 76

TABULATED FORCE DATA - 0A149 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX60) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = .900

RUN NO. 341/ 0 RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-4.026	-3.841	-2.0580	.71240	.07230	.05450	.12690	-1.15730	-3.32810	-3.4880
-4.026	.202	-2.12620	.71770	.09050	.05870	.14920	-1.16630	-3.30000	-3.5490
-3.934	4.285	-2.19590	.71160	.09900	.06220	.16120	-1.16160	-3.26500	-3.4110
	GRADIENT	-0.1736	-0.0010	.00328	.00095	.00422	-0.00053	.00019	.00095

RUN NO. 342/ 0 RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.055	-3.856	-2.1820	1.11400	.07530	.05070	.12590	-1.16050	-3.31770	-3.3210
.055	.186	-3.0680	1.02890	.08950	.05150	.14090	-1.15960	-3.31310	-3.2900
.048	4.260	-3.2150	.55790	.09960	.05210	.15170	-1.16260	-3.31240	-3.2610
	GRADIENT	-0.1272	-0.01800	.00299	.00017	.00318	-0.00025	.00065	.00074

RUN NO. 343/ 0 RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.975	-3.861	1.55510	.61420	.07840	.05440	.13280	-1.16370	-3.30710	-3.30220
4.019	.193	1.52650	.60970	.08700	.04080	.12790	-1.16260	-3.30850	-3.30110
3.944	4.252	1.58060	.62230	.10000	.04410	.14410	-1.16920	-3.30610	-3.30360
	GRADIENT	.00179	.00100	.00266	-0.00127	.00139	-0.00055	.00012	-0.00017

RUN NO. 344/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
8.020	-3.857	2.42930	.64430	.07720	.03270	.11000	-1.16660	-3.70330	-3.29900
8.028	.194	2.43260	.64340	.08580	.03150	.11830	-1.16550	.1590	-3.28300
8.024	4.248	2.43800	.64720	.09560	.03130	.12690	-1.17300	.3360	-3.30050
	GRADIENT	.00107	.00036	.00227	-0.00017	.00209	-0.00079	-0.00006	-0.00019

RUN NO. 345/ 0 RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.919	-3.839	2.50600	.65080	.06090	.02070	.08160	-1.17130	-3.31410	-3.31690
11.929	.180	2.51660	.64760	.07700	.02020	.09720	-1.16810	-3.29570	-3.29190
11.915	4.269	2.46410	.65230	.08510	.02060	.10570	-1.17940	-3.31790	-3.30720
	GRADIENT	-0.00519	.00019	.00298	-0.00001	.00297	-0.00100	-0.00048	.00117

DATE 06 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(REBX61) ( 03 FEB 76 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = .600

RUN NO. 346/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.014	-7.854	-2.03530	.68040	.05770	.03680	.09460	-.11640	-.30490	-.32040
-3.999	-3.832	-2.02760	.68640	.06110	.03820	.09330	-.11860	-.28450	-.30140
-3.990	.201	-2.04830	.69240	.06610	.03930	.10540	-.12110	-.29040	-.30930
-3.989	4.282	-2.08140	.68540	.07040	.04090	.11130	-.11810	-.28340	-.28940
-4.005	8.352	-2.11570	.67580	.07630	.04330	.11960	-.11610	-.28340	-.28940
	GRADIENT		-.00025	.00115	.00033	.00148	.00006	.00014	.00149

RUN NO. 347/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.015	-7.895	-0.06380	1.54700	.05690	.03640	.09330	-.12310	-.26780	-.30660
.022	-3.851	-1.7830	1.09000	.06130	.03660	.09790	-.12110	-.27850	-.29350
.105	.189	-2.2300	1.07150	.06630	.03680	.10360	-.11980	-.27630	-.28840
.100	4.264	-1.9470	1.06540	.07080	.03720	.10900	-.12010	-.27990	-.27970
.094	8.317	-0.06560	1.54350	.07510	.03790	.11300	-.12270	-.28530	-.29510
	GRADIENT		-.00201	.00117	.00007	.00124	.00012	-.00016	.00170

RUN NO. 348/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
4.024	-7.901	1.90580	.62210	.05510	.03590	.09100	-.12600	-.29480	-.30290
4.026	-3.849	1.80160	.61240	.06110	.03630	.09730	-.12510	-.28380	-.28550
4.034	.195	1.70080	.55940	.06650	.03590	.10340	-.12130	-.27400	-.26370
4.044	4.254	1.76120	.61190	.07090	.03560	.10550	-.12680	-.28440	-.28650
4.047	8.299	1.96580	.62540	.07580	.03430	.11010	-.12850	-.28420	-.28930
	GRADIENT		-.00497	.00121	-.00009	.00114	-.00021	-.00008	-.00013

RUN NO. 349/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
8.028	-7.897	3.33940	.63950	.05130	.02800	.07930	-.12960	-.29990	-.31030
8.037	-3.847	3.27710	.63550	.05000	.02710	.08320	-.12620	-.27020	-.26610
8.042	.196	3.22690	.62990	.06270	.02770	.09040	-.12330	-.25870	-.25280
7.960	4.251	3.19220	.63590	.06820	.02730	.09340	-.13130	-.27390	-.27850
7.955	8.305	3.39200	.64190	.07300	.02610	.09900	-.13420	-.28970	-.29930
	GRADIENT		-.01048	.00151	.00002	.00151	-.00063	-.00046	-.00153



REFERENCE DATA  
 SREF = 2690.0000 SQ.FT.      XMRP = 1076.6800 IN. XO      RUDDER = 10.000      SPOBRK = 55.000  
 LREF = 474.8000 IN.      YMRP = .0000 IN. YO      BDFLAP = 16.300      ELVN-L = 4.000  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO      ELVN-R = -4.000      MACH = .600  
 SCALE = .0300

RUN NO.		350/ 0	RN/L = 4.84	GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	LU/DU	XCP/L	CHEO	CHETOT
11.943	-7.853	3.77880	.64490	.01570	.05390
11.962	-3.837	3.72150	.64090	.01440	.05190
11.957	.197	3.65390	.63750	.01420	.05650
11.953	4.259	3.69350	.64330	.01070	.05620
11.951	8.316	3.82447	.64950	.00950	.07050
GRADIENT		-.00271	.00030	-.00046	.00078
					.00064

AMES 11-073(OA148) -140A/B/C/R ORBITER

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT.      XMRP = 1076.6800 IN. XO      RUDDER = 5.000      SPOBRK = 55.000  
 LREF = 474.8000 IN.      YMRP = .0000 IN. YO      BDFLAP = 16.300      ELVN-L = -4.000  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO      ELVN-R = -4.000      MACH = 1.400  
 SCALE = .0300

RUN NO.		351/ 0	RN/L = 2.92	GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	LU/DU	XCP/L	CHEO	CHETOT
-4.059	-3.849	-1.14090	.78050	.05090	.21010
-3.922	.195	-1.13160	.78620	.04650	.21430
-3.930	4.280	-1.12180	.78280	.04360	.21580
GRADIENT		.00235	.00028	-.00090	.00070
					.00027

RUN NO.		352/ 0	RN/L = 2.92	GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	LU/DU	XCP/L	CHEO	CHETOT
.024	-3.867	-1.12910	1.29060	.01860	.14090
.029	.185	-1.13650	1.32360	.01370	.14150
.025	4.257	-1.12690	1.30530	.01140	.14270
GRADIENT		.00028	.00193	-.00089	.00022
					.00013

RUN NO.		353/ 0	RN/L = 2.92	GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	LU/DU	XCP/L	CHEO	CHETOT
3.958	-3.867	.91360	.64200	.00020	.05090
3.958	.187	.89900	.63610	-.00380	.05190
3.963	4.246	.93570	.64390	-.00500	.05910
GRADIENT		.00273	.00023	-.00064	.00101
					.00012

(REBX62) ( 03 FEB 76 )

PARAMETRIC DATA  
 SPOBRK = 55.000  
 ELVN-L = -4.000  
 MACH = 1.400

CP196	CP197
-.29010	-.36830
-.26830	-.35770
-.25520	-.35800
-.26930	.00126
-.28450	
-.00013	

CP196	CP197
-.36390	-.36890
-.36270	-.36360
-.36410	-.35450
-.00002	.00053

CP196	CP197
-.36030	-.36220
-.35380	-.35770
-.36100	-.35550
-.00009	.00091

DATE 08 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX62) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RJDDER = 5.000 SPOBCK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = 1.400

RUN NO. 354/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.927	-3.866	1.62960	.67270	.04660	-.01990	.02670	-.28030	-.36690	-.37390
7.932	.179	1.63670	.67120	.05000	-.02290	.02710	-.27720	-.35790	-.35560
7.933	4.245	1.65550	.67400	.05770	-.02570	.03200	-.28150	-.36550	-.36190
	GRADIENT	.00319	.00016	.00137	-.00072	.00055	-.00015	-.00032	.00160

RUN NO. 355/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.912	-3.654	1.93530	.68060	-.00430	-.03980	-.04410	-.31380	-.35940	-.35590
11.921	.184	1.94950	.68120	-.00760	-.03770	-.04530	-.31390	-.35850	-.35510
11.919	4.259	1.94530	.68180	-.01000	-.03500	-.04590	-.31870	-.35540	-.35370
	GRADIENT	.00129	.00015	-.00070	.00047	-.00022	-.00060	-.00160	-.00053

RUN NO. 356/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
15.912	-3.930	1.95350	.68100	-.05760	-.05410	-.11180	-.34490	-.38180	-.38990
15.924	.184	1.95610	.68250	-.05860	-.05450	-.11300	-.35070	-.39120	-.39310
15.916	4.269	1.94930	.68230	-.05490	-.05210	-.10700	-.35210	-.39080	-.39340
	GRADIENT	-.00060	.00016	.00033	.00025	.00059	-.00096	-.00110	.00129

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RJDDER = 5.000 SPOBCK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = 1.250

RUN NO. 357/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.050	-3.840	-1.34970	.75980	.6500	.07920	.24520	-.19160	-.40770	-.41880
-3.916	.196	-1.34260	.80450	.1720	.07720	.25440	-.19580	-.39650	-.40070
-3.923	4.275	-1.31990	.80140	.18610	.06970	.25570	-.19030	-.39360	-.39960
	GRADIENT	.00368	.00032	.00248	-.00117	.00129	.00016	.00295	.00253

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBX63) ( 03 FEB 76 )

DATE 08 MAY 75  
TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
AMES 11-073(0A148) -140A/B/C/R ORBITER

PARAMETRIC DATA  
RUDDER = 5.000  
BDFLAP = 15.300  
ELVN-R = -4.000  
SPDRK = 55.000  
ELVN-L = -4.000  
MACH = 1.250

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300  
XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUN NO. 358/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CPI96	CPI97
.044	-3.854	-20740	1.22470	.13790	.04410	.18200	-21960	-40470	-40550
.050	.180	-21440	1.23000	.14850	.03140	.18000	-21950	-39590	-39470
.046	4.256	-19460	1.25450	.15130	.02240	.17370	-21990	-39630	-39900
	GRADIENT	.00158	.00357	.00165	-.00267	-.00102	-.00004	.00103	.00092

RUN NO. 359/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CPI96	CPI97
3.930	-3.864	.93070	.62320	.10250	.01070	.11320	-24990	-40050	-40170
3.931	.165	.93370	.61950	.10680	.00510	.11190	-24990	-39200	-39530
3.994	4.245	.94670	.62710	.11590	.00070	.11660	-25380	-39900	-39440
	GRADIENT	.00198	.00048	.00165	-.00123	.00042	-.00048	.00018	.00090

RUN NO. 360/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CPI96	CPI97
7.958	-3.853	1.65220	.66310	.07020	-.01120	.05900	-28400	-41430	-42160
7.973	.179	1.66230	.66460	.07960	-.01540	.06410	-28270	-40610	-41020
7.997	4.244	1.66420	.66540	.08520	-.01660	.06860	-28950	-42080	-41270
	GRADIENT	.00148	.00041	.00185	-.00067	.00118	-.00068	-.00080	.00110

RUN NO. 361/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CPI96	CPI97
11.969	-3.850	1.95500	.67210	.02480	-.03230	-.00750	-31390	-41850	-42160
11.877	.185	1.99010	.67310	.02230	-.03230	-.01000	-31190	-42370	-42190
11.890	4.256	1.95630	.67360	.01520	-.02960	-.01440	-31680	-42880	-41750
	GRADIENT	.00016	.00018	.00119	.00033	-.00085	-.00036	-.00127	.00051

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RES:54) ( 03 FEB 76 )

## REFERENCE DATA

GREF = 2693 0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 47.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.6500 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPHERK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 WACH = 1.100

RUN NO. 362/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-3.951	-3.840	-1.58840	.79790	.15500	.08020	.23530	-20500	-43550	-43680
-3.948	.136	-1.61740	.79560	.16660	.08150	.24800	-11170	-42530	-42730
-3.942	4.273	-1.60770	.79480	.17820	.08650	.26660	-20340	-41910	-42620
	GRADIENT	-0.0237	-0.0038	.00265	.00102	.00386	.00020	.00202	.00106

RUN NO. 363/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.059	-3.823	-1.37080	1.09190	.13930	.08490	.22420	-22300	-43490	-43290
.062	.183	-1.41310	1.07840	.15020	.07720	.22740	-22720	-42320	-42500
.053	4.253	-1.35590	1.10140	.16130	.05930	.20050	-22480	-42470	-43310
	GRADIENT	.00260	.00118	.00271	-.00316	-.00046	-.00059	.00126	-.00004

RUN NO. 704/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
4.021	-3.855	90730	.58230	.12210	.04960	.17160	-24420	-43740	-43220
4.024	.178	90710	.58410	.13520	.03940	.17460	-25240	-42740	-42230
	4.243	93590	.59220	.14630	.02650	.17280	-25070	-43550	-43710
	GRADIENT	.00353	.00115	.00298	-.00285	.00015	-.00080	.00022	-.00060

RUN NO. 365/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.977	-3.859	1.64410	.54490	.09790	.00620	.10400	-27530	-45370	-45630
7.981	.181	1.67070	.54690	.11310	.00150	.11460	-28080	-45550	-45530
7.900	4.237	1.65590	.54830	.12180	.00420	.12600	-28320	-45610	-45690
	GRADIENT	.00144	.00042	.00295	-.00025	.00272	-.00099	.00094	-.00007

RUN NO. 366/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.919	-3.844	1.94560	.65670	.05330	-.02330	.02850	-29980	-47150	-47610
11.930	.169	1.97650	.65750	.06150	-.02340	.03800	-29700	-46190	-45510
11.925	4.249	1.95900	.65890	.06300	-.02120	.04370	-30890	-47630	-47430
	GRADIENT	.00153	.00027	.00157	.00033	.00188	-.00113	-.00092	-.00022

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

768X65) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2590.0000 SQ. FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

YMRP = 1076.6800 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

RUDDER = 5.000  
BOFLAP = 16.300  
ELVN-R = -4.000  
MACH = .900

## PARAMETRIC DATA

RUN NO. 367/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.555	-3.837	-2.44390	.74950	.08490	.05470	.13960	-1.5990	-33110	-35570
-3.553	.195	-2.53200	.75300	.09330	.05320	.15750	-1.6360	-32650	-33950
-3.957	4.274	-2.54610	.74470	.10460	.05870	.16330	-1.5510	-31310	-32400
	GRADIENT	-0.1185	-0.0061	.00243	.00049	.00292	.00059	.00222	.00391

RUN NO. 368/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.052	-3.669	-1.75700	.94400	.08620	.05010	.12530	-1.6250	-32850	-32050
.054	.179	-1.82640	.93750	.09630	.04950	.14640	-1.5220	-31000	-31820
.050	4.252	-1.77670	.93350	.10360	.04940	.15300	-1.5680	-31030	-32760
	GRADIENT	-0.0241	-0.00128	.00214	-0.00039	.00266	.00070	.00224	-0.00086

RUN NO. 369/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
4.021	-3.873	1.17180	.52650	.08490	.04330	.12320	-1.6560	-30480	-30090
4.021	.183	1.11540	.50590	.09600	.04250	.13850	-1.6490	-29710	-30510
4.023	4.246	1.21420	.53030	.10400	.04280	.14690	-1.6240	-30350	-31330
	GRADIENT	.00523	.00047	.00235	-0.00006	.00229	.00052	.00016	-0.00153

RUN NO. 370/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.876	-3.866	2.18120	.61100	.08390	.03350	.11750	-1.6910	-29970	-29530
7.884	.183	2.20470	.61040	.09550	.03400	.12950	-1.6790	-29240	-29410
7.882	4.244	2.24110	.61350	.09580	.03350	.13030	-1.6600	-28950	-30550
	GRADIENT	.00739	.00031	.00159	-0.00001	.00158	.00014	.00125	-0.00065

RUN NO. 371/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.937	-3.854	2.38370	.62850	.07670	.02180	.09350	-1.7330	-31380	-31610
11.920	.190	2.40160	.62490	.08200	.02110	.10310	-1.6750	-29350	-30590
11.937	4.258	2.40600	.62740	.08910	.02210	.11020	-1.6350	-28910	-29570
	GRADIENT	.00201	-0.00013	.00141	.00004	.00144	.00047	.00133	-0.00317

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REYES) ( 03 FEB 76 )

# REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RODDER = 5.000 SPDRK = 55.000  
 BDFLAP = 16.300 ELN-L = -4.000  
 ELN-R = -4.000 MACH = .500

RUN NO. 372/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP155	CP197
-4.037	-7.846	-2.6750	.72110	.06070	.03530	.09500	-.11620	-.28010	-.30590
-3.839	-3.843	-2.61610	.72630	.06420	.03700	.10110	-.12340	-.29220	-.30160
-3.834	.134	-2.53130	.72900	.06890	.03860	.10750	-.12440	-.29360	-.31360
-3.332	4.271	-2.63930	.72550	.07270	.04100	.11370	-.11590	-.28360	-.30330
-3.317	8.233	-2.67230	.72280	.07650	.04230	.11880	-.11260	-.27550	-.29420
	GRADIENT	-.00256	-.00010	.00105	.00049	.00155	.00055	-.00105	-.00021

RUN NO. 373 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP156	CP197
.056	-7.835	-1.64620	.89140	.05910	.03430	.09550	-.12410	-.28550	-.30410
.075	-3.862	-1.62360	.89310	.05990	.03530	.09920	-.12140	-.28740	-.30350
.076	.175	-1.63420	.89370	.05890	.03590	.10480	-.12100	-.28110	-.30110
.073	4.250	-1.63310	.89510	.07290	.03820	.10910	-.11870	-.28140	-.29630
.059	8.303	-1.63120	.90230	.07530	.03670	.11300	-.11550	-.28220	-.29720
	GRADIENT	-.00356	-.00123	.00123	.00011	.00134	.00033	-.00074	-.00052

RUN NO. 374 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
4.021	-7.899	1.19380	.49010	.05700	.03460	.03170	-.12740	-.28570	-.29510
4.024	-3.864	1.13390	.47440	.06200	.03500	.09700	-.12430	-.28350	-.29120
4.022	.166	1.00510	.42750	.06880	.03570	.10450	-.12130	-.27370	-.28300
4.025	4.244	1.10370	.46610	.07310	.03470	.10780	-.12420	-.28120	-.29440
4.031	8.294	1.31440	.50250	.07750	.03330	.11060	-.12540	-.27340	-.28080
	GRADIENT	-.00372	-.00102	.00137	-.00004	.00133	.00033	-.00055	-.00163

RUN NO. 375/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
7.869	-7.869	2.90190	.59510	.05300	.03320	.08120	-.13190	-.29300	-.29370
7.986	-3.859	2.86970	.59030	.05700	.02670	.08450	-.12970	-.27020	-.28210
7.991	.178	2.80930	.58020	.06360	.02750	.09110	-.12450	-.25700	-.26300
7.932	4.237	2.86300	.59030	.06960	.02680	.09560	-.12810	-.26720	-.26540
7.929	8.293	3.02360	.59740	.07360	.02560	.09920	-.13150	-.27630	-.28730
	GRADIENT	-.00042	.00000	.00148	.00001	.00149	.00020	.00111	-.00041

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(REBXES) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 376/ 0

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOI	CHBF	CP195	CP197
12.002	-7.846	3.65900	.62220	.03940	.01600	.05530	-1.1350	-28140	-29320
12.020	-3.839	3.61500	.61530	.04840	.01390	.06230	-1.1360	-26620	-27730
11.993	.185	3.55170	.61060	.05280	.01410	.06630	-1.12840	-25720	-26590
11.990	4.247	3.60320	.61700	.05750	.01070	.06820	-1.13250	-25200	-26360
11.973	8.307	3.71420	.62410	.06170	.00960	.07130	-1.13590	-27250	-27410
	GRADIENT	-.00144	.00021	.00113	-.00040	.00073	-.00024	.00133	.00169

RUDDER = 5.000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

## PARAMETRIC DATA

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 377/ 0

RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOI	CHBF	CP195	CP197
-3.954	-3.849	-2.29070	.73480	.07240	.05020	.12250	-2.1540	-34020	-35120
-3.952	.192	-2.32640	.73810	.08420	.05480	.13900	-2.2050	-34130	-35260
-3.959	4.272	-2.32210	.73230	.08930	.05710	.14640	-2.1180	-33940	-34830
	GRADIENT	-.00386	-.00031	.00208	.00085	.00294	.00045	.00010	.00159

RUDDER = .000 SPDRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

## PARAMETRIC DATA

RUN NO. 378/ 0

RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOI	CHBF	CP195	CP197
.049	-3.871	-1.59320	.92190	.07300	.04520	.11820	-2.1640	-33290	-34050
.052	.177	-1.64130	.92210	.08590	.04580	.13170	-2.1630	-32270	-33440
.052	4.253	-1.57330	.92280	.09570	.04700	.14270	-2.1753	-33750	-33160
	GRADIENT	.00247	.00011	.00279	.00022	.00302	-.00014	.00057	.00019

RUDDER = 5.000 SPDRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

## PARAMETRIC DATA

RUN NO. 379/ 0

RN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOI	CHBF	CP195	CP197
4.019	-3.877	1.26200	.59050	.07230	.04240	.11470	-2.2540	-33010	-33550
4.613	.181	1.21650	.57370	.08200	.03710	.11900	-2.2410	-32930	-32570
4.022	4.243	1.29120	.55680	.09320	.03710	.13030	-2.2420	-32430	-32930
	GRADIENT	.00360	.00078	.00257	-.00065	.00192	.00015	.00075	.00043

RUDDER = 5.000 SPDRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

## PARAMETRIC DATA

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(R6X67) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

RUN NO. 380/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.935	-3.860	2.19480	.63330	.07160	.03240	.10410	-.23040	-.32540	-.32590
7.933	.182	2.22050	.63440	.08190	.03300	.11490	-.22950	-.32540	-.32240
7.992	4.242	2.22530	.63610	.08750	.03240	.11990	-.23230	-.31970	-.31160
	GRADIENT	.00512	.00035	.00196	-.00000	.00195	-.00023	.00070	.00177

RUN NO. 381/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.953	-3.856	2.35450	.64310	.05940	.02180	.08120	-.23780	-.34010	-.33850
11.953	.129	2.37650	.64060	.07020	.02190	.09210	-.23380	-.33750	-.33700
11.953	4.261	2.35230	.64500	.07980	.02420	.10300	-.23950	-.32690	-.33570
	GRADIENT	-.00151	-.00001	.00239	.00030	.00269	-.00022	.00164	.00039

AMES 11-073(0A148) -140A/B/C/R ORBITER

(R6X68) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

RUN NO. 382/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.934	-7.845	-2.37370	.70500	.05670	.03380	.09050	-.16200	-.29990	-.31280
-3.912	-3.844	-2.34550	.71140	.05940	.03550	.09510	-.16620	-.29510	-.30680
-3.895	.193	-2.33080	.71420	.06360	.03590	.10050	-.16770	-.31070	-.32240
-3.903	4.270	-2.35760	.70950	.06830	.03930	.10770	-.16370	-.30570	-.31930
-3.915	8.339	-2.35550	.70630	.07270	.04120	.11390	-.15800	-.29500	-.30640
	GRADIENT	-.00150	-.00024	.00110	.00046	.00155	.00031	-.00130	-.00154

REPRODUCTION  
 ORIGIN



(REBX68) ( 03 FEB 76 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
AMES 11-073(0A148) -140A/B/C/R ORBITER

DATE 08 MAY 76

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
BDFLAP = 22.500 ELVN-L = -4.000  
ELVN-R = -4.000 FACH = .600

RUN NO. 383/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.057	-7.888	-61920	.87360	.05450	.03300	.08750	-.17080	-.30780	-.30890
.076	-3.860	-65020	.88160	.05890	.03380	.09270	-.16820	-.30340	-.31260
.078	.177	-70380	.87860	.05470	.03420	.09300	-.16630	-.30240	-.31670
.074	4.252	-65770	.87050	.06890	.03450	.10340	-.16690	-.30650	-.31470
.069	8.307	-58150	.88550	.07250	.03510	.10760	-.16770	-.29420	-.30900
	GRADIENT			.00123	.00009	.00132	.00016	-.00038	-.00026

RUN NO. 384/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
4.022	-7.901	1.27920	.54870	.05310	.03320	.08630	-.17520	-.30750	-.30890
4.025	-3.852	1.21650	.53630	.05830	.03380	.09210	-.17430	-.31220	-.31510
4.023	.182	1.12270	.51250	.06470	.03490	.09960	-.17030	-.29590	-.29370
4.027	4.243	1.22250	.54220	.06970	.03290	.10260	-.17340	-.30300	-.31220
4.033	8.290	1.39530	.55590	.07340	.03190	.10530	-.17390	-.29300	-.29690
	GRADIENT			.00141	-.00011	.00130	.00011	.00113	.00035

RUN NO. 385/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.982	-7.890	2.89110	.61560	.04750	.02660	.07410	-.18030	-.31350	-.31200
7.993	-3.860	2.81600	.61010	.05230	.02530	.07760	-.17770	-.29700	-.30350
7.991	.185	2.73410	.60290	.05950	.02680	.08630	-.17460	-.28740	-.29070
7.992	4.234	2.77730	.61240	.06600	.02550	.09160	-.17840	-.29320	-.29270
7.990	8.288	2.93650	.61690	.06980	.02490	.09470	-.18100	-.29580	-.29250
	GRADIENT			.00169	.00004	.00173	-.00009	.00047	.00133

RUN NO. 386/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.959	-7.852	3.55350	.63390	.03400	.01590	.04990	-.18260	-.30910	-.31540
11.978	-3.840	3.43220	.62770	.04310	.01420	.05730	-.18000	-.29400	-.30100
11.991	.185	3.42650	.62360	.04830	.01500	.06330	-.18080	-.29000	-.28760
11.977	4.246	3.46930	.63000	.05330	.01200	.06530	-.18270	-.28490	-.27330
11.969	8.308	3.58730	.63520	.05860	.00930	.06790	-.18550	-.28010	-.28740
	GRADIENT			.00126	-.00027	.00099	-.00033	.00113	.00343

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX69) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0070 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .900

RUN NO. 387/ 0 RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP197
-3.999	-3.851	-2.58050	.76410	.15490	.09200	.24700	-21060	-32930
-3.997	.169	-2.63160	.76600	.16560	.09530	.26090	-21300	-34500
-3.981	4.272	-2.61900	.76170	.17290	.09700	.26990	-20600	-34540
	GRADIENT	-0.00473	-0.00030	.00222	.00062	.00282	.00057	-35090
								-0.00072

RUN NO. 369/ 0 RN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP197
.009	-3.860	-1.20310	.89130	.15450	.07320	.23370	-21320	-32450
.010	.177	-1.25430	.89010	.16410	.08070	.24480	-21140	-32460
.007	4.253	-1.20460	.88840	.17050	.08040	.25090	-21120	-33440
	GRADIENT	-0.00017	-0.00035	.00197	.00015	.00212	.00025	-33630
								-0.00145

RUN NO. 359/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP197
4.005	-3.869	.63600	.38360	.14450	.06700	.21150	-22390	-32830
4.022	.179	.62660	.35680	.15280	.06250	.21530	-22140	-32320
4.006	4.240	.65360	.37350	.15820	.05870	.21690	-22380	-32450
	GRADIENT	-0.00201	-0.00124	.00169	-0.00102	.00067	.00001	-0.00047

RUN NO. 390/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP197
7.976	-3.869	1.91810	.60270	.13940	.03680	.17620	-23250	-32920
7.978	.182	1.91320	.60320	.14550	.03400	.17950	-22900	-32920
7.979	4.241	1.94760	.60730	.14810	.02930	.17800	-23130	-31220
	GRADIENT	.00364	.00057	.00107	-0.00095	.00022	.00015	-0.00210

RUN NO. 391/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP197
11.950	-3.653	2.19230	.62500	.12430	.03580	.16010	-23860	-32330
11.955	.189	2.18150	.62130	.13000	.03710	.16310	-23690	-32500
11.949	4.260	2.19240	.62310	.12400	.03800	.16200	-23720	-32150
	GRADIENT	.00002	-0.00023	-0.00004	.00027	.00023	.00017	-0.00538

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 392/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHF	CP196	CP197
-3.949	-7.852	-2.83820	.73670	.10000	.05960	.15960	-.16210	-.29010	-.30480
-3.933	-3.843	-2.76740	.74540	.10500	.06180	.16690	-.16710	-.29050	-.31170
-3.929	.189	-2.74500	.74200	.10720	.06350	.17060	-.16760	-.30350	-.31330
-3.935	4.269	-2.74550	.73880	.10860	.06480	.17340	-.16350	-.30530	-.30250
-3.949	8.334	-2.81140	.73740	.11060	.06550	.17610	-.15950	-.30550	-.28480
	GRADIENT	.00258	-.00020	.00044	.00037	.00080	.00044	-.00182	.00114

RUN NO. 393/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/CU	XCP/L	CHEI	CHEO	CHETOT	CHF	CP196	CP197
.049	-7.888	-1.35940	.84640	.09680	.05420	.15100	-.17090	-.30480	-.30560
.055	-3.864	-1.39760	.84770	.10210	.05500	.15710	-.16880	-.29750	-.30640
.058	.180	-1.42100	.84920	.10630	.05610	.16250	-.16550	-.29710	-.30810
.056	4.251	-1.38000	.84670	.10720	.05730	.16450	-.16710	-.30720	-.30400
.051	8.306	-1.33370	.85170	.11040	.05770	.16820	-.16720	-.31330	-.28350
	GRADIENT	.00218	-.00012	.00063	.00028	.00091	.00021	-.00120	.00030

RUN NO. 394/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHF	CP196	CP197
4.000	-7.898	.41080	.07810	.09480	.05320	.14800	-.17610	-.29780	-.30800
4.002	-3.861	.36120	-.00200	.10010	.05420	.15430	-.17400	-.30650	-.31390
4.000	.182	.26040	-.25590	.10510	.05440	.15950	-.16910	-.29920	-.29720
4.003	4.239	.36460	.01650	.10740	.05300	.16040	-.17420	-.31380	-.30760
4.009	8.292	.49550	.16040	.10940	.05210	.16150	-.17330	-.31210	-.28860
	GRADIENT	.00043	.00232	.00090	-.00015	.00075	-.00003	-.00090	.00078

RUN NO. 395/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHF	CP196	CP197
7.945	-7.890	2.14660	.54470	.09060	.04490	.13550	-.18230	-.30600	-.31820
7.956	-3.860	2.05840	.53340	.09520	.04690	.14210	-.17800	-.30050	-.30570
7.955	.181	1.95250	.51770	.10150	.04950	.15090	-.17420	-.29930	-.29520
7.955	4.234	2.00530	.53290	.10410	.04830	.15240	-.17780	-.30400	-.30020
7.954	8.280	2.15710	.54130	.10610	.04650	.15560	-.18000	-.31050	-.29280
	GRADIENT	-.00655	-.00006	.00110	.00017	.00127	.00002	-.00043	.00068

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX70) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6200 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

RUN NO. 396/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.935	-7.848	3.11130	.59460	.08290	.03620	.11910	-.18710	-.30510	-.31920
11.942	-3.851	3.03640	.58640	.08920	.03450	.12370	-.18300	-.30130	-.31610
11.947	.182	2.96410	.58210	.09190	.03460	.12650	-.18260	-.31060	-.30240
11.942	4.245	3.00360	.58820	.09470	.03430	.12890	-.18330	-.30090	-.28000
11.935	8.309	3.15750	.59610	.09810	.03420	.13230	-.18640	-.30320	-.27180
	GRADIENT	-.00329	.00022	.00068	-.00002	.00064	-.00004	.00005	.00446

AMES 11-073(0A148) -140A/B/C ORBITER

(REBX71) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6200 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

RUN NO. 397/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.946	-3.857	-1.24240	.79580	.23660	.08130	.31780	-.18680	-.35160	-.35920
-3.940	.190	-1.25290	.80020	.24420	.07670	.32090	-.18840	-.34810	-.35470
-3.946	4.272	-1.23790	.79670	.24450	.07050	.31500	-.18000	-.33930	-.34250
	GRADIENT	.00055	-.00001	.00097	-.00133	-.00035	.00084	.00151	.00206

RUN NO. 398/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.016	-3.873	-1.31590	1.04980	.18990	.04480	.23470	-.21590	-.36930	-.37510
.022	.180	-1.31220	1.06880	.19490	.04260	.23750	-.21230	-.36250	-.36170
.018	4.248	-1.29750	1.06920	.19560	.04250	.23810	-.21220	-.35780	-.36950
	GRADIENT	.00225	.00239	.00070	-.00028	.00042	.00046	.00142	.00069

RUN NO. 399/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.951	-3.877	.71650	.58580	.14720	.02440	.17160	-.24720	-.36980	-.36980
3.952	.179	.63250	.57420	.15080	.02160	.17240	-.24360	-.35920	-.36090
3.956	4.242	.73380	.58880	.15230	.02020	.17250	-.24720	-.36940	-.36240
	GRADIENT	.00213	.00037	.00063	-.00092	.00011	-.00000	-.00007	.00091

AMES 11-073(0A148) -140A/B/C ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT.    XMRP = 1076.6800 IN. XO    RUDDER = -5.000    SPOBRK = 55.000  
 LREF = 474.8000 IN.    YMRP = .0000 IN. YO    BDFLAP = 16.300    ELVN-L = -10.000  
 BREF = 936.6800 IN.    ZMRP = 375.0000 IN. ZO    ELVN-R = -10.000    MACH = 1.400  
 SCALE = .0300

RUN NO. 400/ 0    RN/L = 2.91    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.987	-3.873	1.48060	.65260	.11750	-.00010	.11740	-.28250	-.37390	-.38150
7.995	.177	1.48400	.65050	.11890	.00030	.11920	-.28100	-.36350	-.36540
7.992	4.237	1.48660	.65220	.11570	.00150	.11720	-.28090	-.37140	-.36630
	GRADIENT	.00074	-.00005	-.00022	.00020	-.00002	.00020	.00031	.00187

RUN NO. 401/ 0    RN/L = 2.91    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.960	-3.861	1.84210	.66830	.06040	-.01730	.04300	-.31310	-.37830	-.38590
11.969	.177	1.84790	.66830	.05180	-.01480	.03690	-.31130	-.37690	-.37440
11.967	4.251	1.83550	.66750	.03730	-.01250	.02480	-.31290	-.37640	-.37320
	GRADIENT	-.00082	-.00010	-.00285	.00059	-.00224	.00002	.00023	.00156

RUN NO. 402/ 0    RN/L = 2.92    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
15.903	-3.840	1.90950	.67230	-.00170	-.03280	-.03440	-.34710	-.39490	-.39730
15.917	.180	1.90570	.67320	-.00170	-.03190	-.03360	-.34850	-.38890	-.38990
15.910	4.280	1.89330	.67170	.00340	-.02770	-.03110	-.34860	-.39630	-.38570
	GRADIENT	-.00200	-.00007	-.00021	.00063	.00041	-.00018	-.00018	.00143

REFERENCE DATA

SREF = 2690.0000 SQ.FT.    XMRP = 1076.6800 IN. XO    RUDDER = -5.000    SPOBRK = 55.000  
 LREF = 474.8000 IN.    YMRP = .0000 IN. YO    BDFLAP = 16.300    ELVN-L = -10.000  
 BREF = 936.6800 IN.    ZMRP = 375.0000 IN. ZO    ELVN-R = -10.000    MACH = 1.250  
 SCALE = .0300

RUN NO. 403/ 0    RN/L = 3.01    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
-3.944	-3.854	-1.46660	.81600	.25480	.11750	.37240	-.19330	-.40100	-.41010
-3.937	.190	-1.48770	.81770	.26350	.11130	.37480	-.19190	-.37450	-.39430
-3.943	4.266	-1.45810	.81620	.00153	-.00249	.36450	-.18730	-.37810	-.38180
	GRADIENT	.00106	.00002	.00153	-.00249	-.00098	.00074	.00282	.00348

AMES 11-073(0A148) -140A/B/C ORBITER

(REBX72) ( 03 FEB 76 )

PARAMETRIC DATA

SPOBRK = 55.000  
 ELVN-L = -10.000  
 MACH = 1.250

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORBITER

(REBX72) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPCBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.250

RUN NO. 404/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.983	-3.865	.40830	1.06540	.21900	.06920	.28820	-.22070	-.40090	-.40350
3.983	.176	-.41070	1.07110	.28960	.05600	.28560	-.21680	-.39100	-.39330
3.994	4.247	-.39330	1.06940	.23050	.04730	.27780	-.21800	-.39420	-.40600
	GRADIENT	.00185	.00037	.00142	-.00270	-.00128	.00033	.00082	-.00031

RUN NO. 405/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.983	-3.876	.70860	.54980	.17960	.03650	.21620	-.25330	-.40870	-.39920
3.983	.181	.69300	.54570	.18280	.02980	.21250	-.25220	-.39940	-.40250
3.994	4.240	.70130	.55290	.18840	.02400	.21240	-.25260	-.40470	-.40020
	GRADIENT	-.00090	.00038	.00108	-.00154	-.00047	.00009	.00049	-.00012

RUN NO. 406/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.933	-3.872	1.43110	.64110	.14560	.01320	.15870	-.28430	-.42080	-.42390
7.940	.173	1.46850	.64290	.15170	.00850	.16020	-.28370	-.42110	-.41280
7.943	4.235	1.50280	.64430	.14800	.01030	.15830	-.28460	-.41680	-.41210
	GRADIENT	.00342	.00039	.00030	-.00036	-.00005	-.00004	.00049	-.00145

RUN NO. 407/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
12.023	-3.855	1.86050	.65970	.10840	-.00660	.10180	-.31520	-.43370	-.43930
12.037	.182	1.87600	.65950	.09880	-.00750	.09140	-.31120	-.42270	-.42750
12.032	4.249	1.85200	.65860	.08820	-.00580	.08230	-.31150	-.42940	-.42660
	GRADIENT	-.00106	-.00014	-.00249	.00010	-.00241	.00046	.00053	-.00157

DATE 09 MAY 76

TABULATED FORCE DATA - 0A149 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX73) ( 03 FEB 76 )

REFERENCE DATA

REF = 2530.0000 SQ.FT. XMRP = 1076.6900 IN. X0  
REF = 474.8000 IN. YMRP = 0000 IN. Y0  
REF = 935.6500 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -5.000 SPCBRK = 55.000  
BDFLAP = 16.300 ELVN-L = -10.000  
ELVN-R = -10.000 MACH = 1.100

RUN NO. 408/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.358	-3.850	-1.79180	.81410	.25860	.12580	.38430	-.20010	-.43740	-.43070
-3.953	.190	-1.80590	.81560	.25800	.12410	.38210	-.20160	-.40580	-.41950
-3.550	4.265	-1.78210	.81370	.25900	.12690	.36500	-.19730	-.42490	-.43280
	GRADIENT	-.00003	-.00005	.00005	.00014	.00021	.00035	.00153	-.00026

RUN NO. 409/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.047	-3.869	-.65710	1.00930	.23700	.11050	.34750	-.22050	-.43780	-.42330
.052	.177	-.70380	1.00780	.23640	.09850	.33490	-.21650	-.41550	-.41410
.046	4.245	-.66230	1.00500	.23760	.08170	.31920	-.21780	-.42050	-.42550
	GRADIENT	-.00063	-.00041	.00007	-.00355	-.00349	.00033	.00213	-.00027

RUN NO. 410/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
4.012	-3.872	.62850	.46500	.21730	.07500	.29230	-.24560	-.44720	-.43650
4.014	.182	.53610	.44230	.22010	.06140	.28150	-.24290	-.42630	-.41520
4.006	4.238	.61440	.46250	.21930	.04430	.26350	-.24490	-.42550	-.41760
	GRADIENT	-.00175	-.00068	.00025	-.00379	-.00355	.00009	.00268	.00233

RUN NO. 411/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.976	-3.858	1.41230	.61000	.18200	.03620	.21820	-.27260	-.46960	-.46310
7.984	.174	1.43420	.61060	.18980	.02660	.21630	-.27000	-.44180	-.43470
7.984	4.233	1.44530	.61470	.19590	.02600	.22190	-.27360	-.44420	-.43940
	GRADIENT	.00404	.00058	.00172	-.00126	.00046	-.00012	.00313	.00292

RUN NO. 412/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
12.067	-3.848	1.81690	.62970	.13700	.00470	.14160	-.29730	-.47750	-.47430
12.077	.190	1.82970	.63350	.14030	.00570	.14600	-.29400	-.46130	-.45770
12.076	4.245	1.82140	.64000	.13610	.00650	.14260	-.29900	-.47380	-.46480
	GRADIENT	.00031	.00004	-.00011	.00022	.00012	-.00009	.00045	.00117

DATE 08 MAY 76  
 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 (REBX74) ( 01 FEB 76 )  
 AMES 11-073(0A148) -140A/B/C ORBITER

PARAMETRIC DATA  
 SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300  
 XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0  
 RUDDER =  
 BDFLAP =  
 ELVN-R =

SPDRK = 55.000  
 ELVN-L = -10.000  
 MACH = .900

REFERENCE DATA

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
-3.998	-3.854	-2.78850	.77400	.16460	.09530	.25990	-.15800	-.29850	-.31880
-3.915	.189	-2.76850	.77850	.17550	.09630	.27180	-.16180	-.31000	-.32770
-3.961	4.266	-2.75550	.77490	.16530	.09990	.28520	-.15430	-.29960	-.3170
	GRADIENT	.00406	.00011	.00255	.00057	.00312	.00046	.00110	.00014
RUN NO. 413/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
.055	-3.868	-1.41300	.90600	.16230	.08280	.24510	-.15970	-.29860	-.30710
.084	.180	-1.42790	.90530	.17120	.08450	.25570	-.15820	-.30570	-.31050
.055	4.248	-1.39110	.90470	.17850	.08440	.26300	-.15910	-.30120	-.31810
	GRADIENT	.00394	-.00016	.00200	.00020	.00221	.00007	-.00032	-.00135
RUN NO. 414/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
4.001	-3.675	.53020	.18810	.15680	.06920	.22600	-.16830	-.29760	-.29790
4.079	.183	.50430	.15550	.16440	.06410	.22850	-.16800	-.29340	-.30150
4.001	4.242	.54540	.20480	.17110	.06040	.23150	-.16750	-.29650	-.29660
	GRADIENT	.00187	.00206	.00176	-.00108	.00068	.00010	.00014	.00016
RUN NO. 415/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
7.933	-3.872	1.88910	.57450	.15290	.03660	.18950	-.17610	-.29540	-.28950
8.028	.177	1.83650	.57400	.15890	.03410	.19300	-.17350	-.28260	-.28530
8.031	4.235	1.94060	.58110	.15620	.02950	.18580	-.17370	-.28380	-.27270
	GRADIENT	.00545	.00077	.00041	-.00065	-.00046	.00030	.00143	.00209
RUN NO. 416/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
11.980	-3.859	2.22480	.60930	.15540	.03710	.17250	-.17890	-.29110	-.29990
12.020	.183	2.20720	.60450	.13620	.03860	.17480	-.17460	-.28150	-.26400
12.054	4.256	2.20160	.63720	.13710	.03930	.17670	-.17900	-.28190	-.26500
	GRADIENT	-.00286	-.00026	.00021	.00027	.00048	-.00001	.00113	.00183



DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX75) ( 03 FEB 76 )

## REFERENCE DATA

REF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 GREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPDBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

RUN NO. 418/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.333	-7.654	-3.13440	.74700	.10780	.06120	.16900	-.12090	-.27550	-.28170
-3.933	-3.648	-3.00500	.75120	.11310	.06350	.17590	-.12680	-.28590	-.29010
-3.933	.187	-3.00680	.75230	.11480	.05480	.17950	-.12710	-.29250	-.30920
-3.336	4.266	-3.00450	.74930	.11630	.06540	.18160	-.12290	-.28380	-.29340
-3.941	8.332	-3.07350	.74900	.11680	.06690	.18350	-.11720	-.27040	-.27270
	GRADIENT	.00006	-.00024	.00039	.00023	.00062	.00049	.00026	-.00114

RUN NO. 419/ 0 RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.043	-7.630	-1.64970	.65550	.10390	.05470	.15950	-.12860	-.29040	-.28850
.031	-3.623	-1.65030	.66140	.11360	.05570	.16530	-.12820	-.29140	-.28970
.092	.181	-1.67610	.66110	.11500	.05560	.17160	-.12630	-.28320	-.28970
.077	4.247	-1.63140	.65780	.11580	.05770	.17350	-.12590	-.27750	-.29830
.073	8.305	-1.59270	.65500	.11790	.05790	.17590	-.12490	-.27500	-.28230
	GRADIENT	.00234	-.00044	.00064	.00025	.00089	.00028	.00048	-.00118

RUN NO. 420/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
4.023	-7.904	.22920	-.55670	.10000	.05420	.15420	-.13350	-.25900	-.28680
4.026	-3.654	.16950	-.74460	.10660	.05500	.16160	-.13290	-.28970	-.29690
4.153	.177	.15160	-1.04780	.11290	.05490	.16780	-.12650	-.27260	-.27340
4.012	4.240	.22930	-.51180	.11470	.05360	.16940	-.13130	-.28230	-.28970
4.017	8.298	.34570	-.20360	.11660	.05280	.16940	-.13000	-.28040	-.27060
	GRADIENT	.00511	.02382	.00100	-.00017	.00084	.00020	.00091	.00089

RUN NO. 421/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.959	-7.893	2.12640	.50910	.09630	.04540	.14170	-.14000	-.28960	-.29180
7.971	-3.653	2.04230	.49570	.10060	.04700	.14760	-.13620	-.28120	-.28200
8.077	.178	1.98970	.48070	.10680	.04920	.15600	-.13110	-.26560	-.24490
8.079	4.235	2.07520	.50340	.10690	.04830	.15720	-.13600	-.27210	-.25520
8.076	8.290	2.20030	.51250	.11080	.04540	.15720	-.13750	-.27660	-.27540
	GRADIENT	.03407	.00395	.00102	.00016	.00118	.00002	.00112	.00331

DATE 03 MAY 76  
 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C ORBITER

(REBY75) ( 03 FEB 76 )

REFERENCE DATA

SPREF = 2690.0000 SQ.FT. XREF = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YREF = .0000 IN. YO  
 BREF = 935.6800 IN. ZREF = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -5.000  
 BOFLAP = 16.300  
 ELVN-R = -10.000  
 SPCSRK = 55.000  
 ELVN-L = -10.000  
 MACH = .600

RUN NO. 422/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
11.994	-7.650	3.21090	.57340	.05590	.03770	.12360	-.14520	-.28850	-.28900
12.013	-3.840	3.11350	.59310	.09340	.03480	.12820	-.11400	-.27550	-.27550
12.028	-.180	3.03250	.56410	.09590	.03520	.13110	-.13750	-.26620	-.26620
12.057	4.244	3.11450	.57410	.09330	.03430	.13360	-.14000	-.26500	-.26500
12.114	8.307	3.27790	.59370	.10360	.03230	.13390	-.14300	-.26580	-.26580
	GRADIENT		.00057	.00073	-.00006	.00067	.00004	.00159	.00458

AMES 11-073(0A148) -140A/B/C ORBITER

(REBY75) ( 03 FEB 76 )

REFERENCE DATA

SPREF = 2630.0000 SQ.FT. XREF = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YREF = .0000 IN. YO  
 BREF = 935.6800 IN. ZREF = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000  
 BOFLAP = -11.700  
 ELVN-R = -10.000  
 SPCSRK = .000  
 ELVN-L = 10.000  
 MACH = 1.400

RUN NO. 423/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
-4.004	-3.953	-1.16390	.73910	.23530	.08230	.31750	.01840	-.24430	-.33690
-4.011	.191	-1.18120	.74520	.24220	.07730	.31940	.02010	-.34750	-.33950
-3.993	4.275	-1.16320	.74030	.24390	.07140	.31520	.02260	-.34450	-.34550
	GRADIENT		.00015	.00105	-.00134	-.00028	.00052	-.00002	-.00106

RUN NO. 424/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
.039	-3.856	-1.03630	1.51210	.18960	.04440	.23300	.00970	-.34620	-.33290
.033	.181	-1.05710	1.26130	.19230	.04240	.23470	.01230	-.34970	-.34210
.039	4.255	-1.05920	1.27780	.19500	.04260	.23760	.01480	-.35190	-.34570
	GRADIENT		-.00269	.00073	-.00022	.00057	.00063	-.00070	-.00158

RUN NO. 425/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHEF	CP196	CP197
3.961	-3.871	1.11140	.68550	.14500	.02300	.16900	-.00120	-.34500	-.33400
3.962	.197	1.00000	.67720	.14880	.02130	.17010	.00310	-.33870	-.33510
3.963	4.246	1.05690	.68190	.15250	.02000	.17250	.00440	-.34280	-.34390
	GRADIENT		-.000376	.00080	-.00037	.00043	.00069	-.00047	-.00122

DATE 03 MAY 75

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX76) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2693.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.400

RUN NO. 426/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.657	-3.655	1.87650	.63160	.11610	-.00020	.11590	-.00960	-.34150	-.33030
7.954	.189	1.84200	.69820	.11890	.00020	.11910	-.00550	-.33940	-.33450
7.931	4.247	1.81530	.69380	.11620	.00060	.11660	-.00650	-.35820	-.35230
	GRADIENT	-.00754	-.00022	-.00001	.00010	.00003	.00039	-.00203	-.00254

RUN NO. 427/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.871	-3.849	2.12440	.60130	.06330	-.01750	.04570	-.02290	-.35170	-.34570
11.913	.191	2.05370	.69090	.05450	-.01490	.03970	-.02090	-.35780	-.35530
11.938	4.262	2.06390	.69040	.04350	-.01340	.03010	-.02200	-.35180	-.35410
	GRADIENT	-.00425	-.00011	-.00244	.00051	-.00192	.00011	-.00124	-.00103

RUN NO. 428/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
15.905	-3.830	2.08460	.66560	-.00060	-.03270	-.03330	-.02940	-.36300	-.34730
15.917	.190	2.06460	.66940	-.00110	-.03140	-.03240	-.03670	-.36250	-.36920
15.907	4.290	2.05510	.66740	-.00120	-.02780	-.02910	-.03950	-.36820	-.37070
	GRADIENT	-.00351	-.00015	-.00037	.00060	.00052	-.00124	-.00285	-.00297

## REFERENCE DATA

SREF = 2693.0000 SQ.FT. XMRP = 1075.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.250

RUN NO. 429/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
4.016	-3.849	1.35770	.76370	.25410	.11710	.37120	.03000	-.36920	-.37350
4.011	.185	1.33790	.76780	.26420	.11360	.37790	.02500	-.38010	-.37150
4.023	4.275	1.35510	.76450	.26930	.10020	.36950	.03650	-.37500	-.37560
	GRADIENT	-.00225	.00010	.00175	-.00228	-.00034	.00185	.00135	-.00004

AMES 11-073(0A148) -140A/B/C ORBITER

(REBX77) ( 03 FEB 76 )

DATE 08 MAY 76  
 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C ORBITER

(REBX77) : 03 FEB 76

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

RUDDER =  
 BDFLAP =  
 ELVN-R =

SPEEDK =  
 ELVN-L =  
 MACH =

RUN NO. 430/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
.012	-3.863	-1.0560	1.28470	.22090	.06960	.29050	.0320	-3.7610	-36060
.014	.176	-1.1350	1.18860	.23040	.05560	.28500	.02710	-3.7810	-36670
.025	4.255	-1.2320	1.15460	.23030	.04820	.27850	.03150	-3.8020	-37630
	GRADIENT	-.03238	-.01108	.00116	-.00263	-.00148	.00102	-.00351	-.00193

RUN NO. 431/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
3.967	-3.868	1.16870	.67310	.18010	.03520	.21630	.01530	-3.5500	-36090
3.988	.192	1.16760	.66900	.18420	.02350	.21350	.02030	-3.5630	-36010
3.988	4.246	1.16080	.67220	.18980	.02360	.21240	.01330	-3.5730	-36030
	GRADIENT	-.00550	-.00036	.00107	-.00155	-.00048	.00069	-.00176	-.00226

RUN NO. 432/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
7.974	-3.859	1.34480	.68730	.14630	.01170	.15810	.00480	-3.7480	-36440
7.978	.184	1.32110	.69500	.15100	.00820	.15920	.00650	-3.7270	-36500
7.978	4.242	1.33300	.69490	.14690	.00990	.15690	.00680	-3.7080	-36760
	GRADIENT	-.00589	-.00030	.00007	-.00022	-.00016	.00025	-.00222	-.00256

RUN NO. 433/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF	CP196	CP197
11.951	-3.847	2.18320	.68650	.10720	-.00680	.10040	-.00750	-3.8960	-38800
11.970	.192	2.16430	.68490	.09830	-.00770	.09060	-.00500	-3.9570	-39410
11.952	4.260	2.13390	.68380	.09900	-.00690	.08310	-.00560	-3.9930	-39430
	GRADIENT	-.00608	-.00035	-.00225	.00011	-.00213	.00023	-.00127	-.00079

PARAMETRIC DATA

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX78) 1 03 29 76 )

## REFERENCE DATA

SPEF = 2633.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.6000 IN. YMRP = .0000 IN. Y0  
 BREF = 935.6000 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.100

RUN NO. 434/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP195	CP197
4.062	-3.838	-1.53230	.76230	.26230	.12640	.38850	.04620	-.39783	-.36470
4.059	.195	-1.63500	.76620	.25950	.12500	.39450	.05160	-.39440	-.38770
4.055	4.277	-1.63400	.75720	.25780	.12480	.39250	.05230	-.41370	-.40670
	GRADIENT	-.05635	.00050	-.00055	-.00020	-.00075	.00075	-.00195	-.00271

RUN NO. 435/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP195	CP197
4.040	-3.863	-1.23770	1.11170	.24060	.11090	.35150	.05050	-.36320	-.37020
4.041	.186	-1.36400	1.06140	.24020	.09550	.35690	.05300	-.36100	-.37340
4.036	4.252	-1.23340	1.04740	.23690	.07830	.31520	.05340	-.35400	-.39730
	GRADIENT	-.00666	-.00792	-.00046	-.00402	-.00447	.00036	-.00133	-.00213

RUN NO. 436/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP195	CP197
4.006	-3.854	1.23420	.64780	.21770	.07240	.29020	.04680	-.35720	-.36320
4.004	.194	1.16480	.63810	.22250	.05830	.28060	.04960	-.37580	-.36920
4.004	4.242	1.13930	.63910	.22070	.04440	.26520	.05170	-.39470	-.36320
	GRADIENT	-.01040	-.00107	.00037	-.00345	-.00368	.00036	-.00092	-.00243

RUN NO. 437/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP195	CP197
8.022	-3.857	2.00540	.67370	.17530	.03300	.20830	.04080	-.33190	-.35520
8.002	.185	1.56460	.67280	.18630	.02550	.21180	.04170	-.39120	-.36010
7.997	4.239	1.59280	.66930	.19530	.02520	.22050	.04410	-.40810	-.40480
	GRADIENT	-.01403	-.00054	.00247	-.00095	.00151	.00041	-.00176	-.00356

RUN NO. 438/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP195	CP197
11.953	-3.839	2.21990	.67370	.13260	.00300	.13540	.02860	-.41170	-.36620
11.957	.124	2.17110	.67230	.13900	.00350	.14480	.02440	-.42390	-.41120
11.959	4.256	2.14800	.57230	.13420	.00650	.14230	.03160	-.42390	-.41660
	GRADIENT	-.00887	-.00017	.00020	.00062	.00073	.00039	-.00039	-.00059

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RESX79) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPCBRN = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .900

RUN NO. 439/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
-4.051	-3.840	-2.69370	.73040	.17320	.09330	.26650	.00780	-23490	-22740
-4.055	.202	-2.81580	.73930	.19180	.09710	.28890	.00770	-22860	-23000
-4.070	4.263	-2.63110	.73430	.19670	.09950	.29340	.00480	-22330	-23340
	GRADIENT	-.02359	.00048	.00291	.00076	.00368	-.00037	-.00215	-.00074

RUN NO. 440/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
.045	-3.859	-1.63770	.94730	.18130	.08170	.26300	.01310	-23120	-22020
.042	.192	-1.82270	.92150	.18890	.08260	.27150	.01050	-22160	-21200
.032	4.250	-1.87660	.89160	.19300	.08240	.27540	.01010	-24620	-22330
	GRADIENT	-.02341	-.00286	.00144	.00009	.00153	-.00037	-.00216	-.00118

RUN NO. 441/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
4.222	-3.861	1.76970	.59930	.17550	.06660	.24210	.01870	-22310	-21220
4.011	.197	1.61070	.58410	.17840	.06260	.24100	.01310	-21340	-20250
4.017	4.251	1.58250	.59090	.18050	.05910	.23960	.01210	-22580	-22700
	GRADIENT	-.02308	-.00104	.00062	-.00092	-.00031	-.00081	-.00033	-.00182

RUN NO. 442/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
7.937	-3.857	2.76540	.64370	.17260	.03520	.20770	.02590	-21660	-20650
7.934	.192	2.57940	.64260	.17510	.03320	.20830	.02070	-21770	-20740
7.926	4.250	2.59450	.64820	.16820	.02650	.19470	.01570	-23140	-21580
	GRADIENT	-.00874	.00031	-.00054	-.00107	-.00160	-.00126	-.00158	-.00063

RUN NO. 443/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP195	CP197
11.959	-3.847	2.67790	.64750	.15330	.03720	.19060	.04110	-24380	-21740
11.976	.196	2.63310	.64540	.15540	.03770	.19410	.03830	-24740	-22930
11.956	4.265	2.62540	.64690	.15020	.03940	.18960	.02940	-26290	-23480
	GRADIENT	-.00634	-.00007	-.00038	.00027	-.00012	-.00144	-.00236	-.00214

DATE 06 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX80) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LPEF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .600

RUN NO. 444/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.078	-7.859	-2.94590	.69660	.11290	.05950	.17230	-.00570	-.25060	-.22270
-4.062	-3.836	-2.84820	.70230	.11750	.06150	.17900	-.00740	-.24450	-.21990
-4.061	.183	-2.84150	.70720	.12050	.06270	.18330	-.01200	-.23570	-.22700
-3.963	4.258	-2.87450	.69530	.12190	.06380	.18570	-.02050	-.24360	-.22610
-3.995	8.337	-2.92380	.68330	.12290	.06430	.18720	-.02420	-.24740	-.23100
	GRADIENT	-.00327	-.00081	.00054	.00028	.00083	-.00162	.00011	-.00076

RUN NO. 445/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-4.053	-7.836	-2.9720	.90030	.11040	.05390	.16420	-.00310	-.24000	-.21990
-4.009	-3.854	-2.64500	.90780	.11520	.05460	.16930	-.00720	-.25140	-.22220
.029	.176	-7.3510	.83580	.11840	.05580	.17520	-.01290	-.25340	-.22350
.052	4.239	-6.8970	.85510	.12090	.05640	.17720	-.02050	-.24550	-.22250
.006	8.284	-5.9310	.84930	.12400	.05740	.18140	-.02250	-.22710	-.22330
	GRADIENT	-.00550	-.00639	.00070	.00022	.00091	-.00164	.00073	.00004

RUN NO. 446/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.903	-7.902	2.11240	.58240	.10740	.05330	.16070	-.00330	-.24070	-.21230
3.907	-3.865	1.89630	.56430	.11350	.05420	.16790	-.00590	-.24980	-.20450
3.984	.180	1.75340	.55740	.11870	.05420	.17300	-.00980	-.23620	-.21660
3.988	4.226	1.81440	.57650	.12070	.05280	.17350	-.01690	-.23760	-.22300
4.029	8.276	2.16820	.59930	.12230	.05240	.17470	-.02000	-.22400	-.22680
	GRADIENT	-.00518	.00151	.00088	-.00017	.00069	-.00136	.00151	-.00229

RUN NO. 447/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
7.903	-7.896	3.68980	.62030	.10420	.04530	.14960	-.00500	-.23870	-.19700
7.912	-3.851	3.69580	.61630	.10850	.04660	.15510	-.00760	-.23580	-.19740
3.059	.184	3.59110	.61620	.11500	.04930	.16430	-.01350	-.22840	-.20240
6.016	4.233	3.65440	.62450	.11680	.04840	.16520	-.01950	-.23950	-.23150
8.043	8.283	3.91560	.62920	.11760	.04600	.16360	-.02430	-.23150	-.23560
	GRADIENT	-.00523	.00101	.00103	.00022	.00125	-.00147	-.00047	-.00422

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX8C) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .600

RUN NO. 448/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
11.974	-7.860	4.24980	.63480	.09430	.03590	.13020	-.01050	-.24070	-.21450
11.993	-3.842	4.11340	.63130	.10190	.03310	.13500	-.01220	-.23420	-.20140
12.035	.179	4.05760	.63120	.10550	.03360	.13910	-.01760	-.23040	-.21560
12.027	-.242	4.18200	.63730	.10870	.03350	.14220	-.01970	-.22020	-.21650
12.061	8.297	4.28670	.64090	.11100	.03300	.14400	-.02950	-.23350	-.23760
	GRADIENT	.00853	.00074	.00034	.00005	.00069	-.00033	.00173	-.00165

AMES 11-073(0A148) -140A/B/C ORBITER

(REBX81) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.400

RUN NO. 449/ 0 RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
-3.955	.178	-1.15190	.75260	-.02750	-.03510	-.06270	.02670	-.36770	-.36030
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 450/ 0 RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
.028	.177	-.05450	1.50720	-.05970	-.05560	-1.1530	.02010	-.36000	-.35030
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 451/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
3.945	-3.872	1.08350	.67770	-.09470	-.07490	-.16960	.01140	-.36010	-.35190
3.993	.185	1.08450	.67350	-.09150	-.07650	-.16900	.01060	-.35610	-.34380
3.932	4.246	1.13520	.68080	-.08690	-.07640	-.16330	.00680	-.35190	-.34430
	GRADIENT	.00637	.00038	.00096	-.00018	.00078	-.00057	.00101	.00094



DATE 08 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REX801) ( 03 FEB 76 )

REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1076.6800	IN. X0
LFREF	=	474.8000	IN.	YMRP	=	.0000	IN. Y0
BRREF	=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
SCALE	=	.0300					

RUDDER =	10.000	SPDBRK =	.000
BDFLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	1.400

## PARAMETRIC DATA

RUN NO. 452/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF
11.906	-3.868	2.10370	.68960	-.17430	-.11390	-.28820	-.01760
11.888	.169	2.11890	.68960	-.17310	-.11510	-.26820	-.01540
11.887	4.249	2.12780	.68920	-.17300	-.11380	-.28680	-.01620
	GRADIENT	.00297	.00002	.00016	.00001	.00017	.00017

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHEO	CHETOT	CHBF
15.870	.160	2.08500	.68750	-.21910	-.12850	-.34760	-.02700
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000
RUN NO. 454/ 0		RN/L = 2.91		GRADIENT INTERVAL = -5.00/ 5.00			

AMES 11-073(OA148) -140A/B/C ORBITER

(REFX82) ( 03 FEB 76 )

REFERENCE DATA

SREF	=	2590.0000	SQ.FT.	XMRP	=	1076.6800	IN. X0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN. Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
SCALE	=	.0300					

RUDDER =	10.000	SPOBRK =	.000
BOFLAP =	-11.733	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	1.250

## PARAMETRIC DATA

RUN NO. 455/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

ALPHA	BETA	RUN NO.	456/ 0	RI/L =	GRADIENT INTERVAL =	-5.00/	5.00
.004	.171		LU/DU	XCP/L	CHET	CHETOT	CHBF
			-.12930	1.30320	-.06710	-.05190	.03590
	GRADIENT		.00000	.00000	.00000	.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX82) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = 10.000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 457/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
3.910  
3.950  
3.915BETA  
-3.830  
.192  
4.246  
GRADIENTLU/DU  
1.08070  
1.09550  
1.16340  
.01005XCP/L  
.65690  
.65760  
.65750  
.00130CHEI  
-.09830  
-.09150  
-.08460  
.00169CHEO  
-.07470  
-.08090  
-.08220  
-.00092CHETOT  
-.17300  
-.17240  
-.16680  
.00076CHBF  
.02880  
.02890  
.02230  
-.00080CP196  
-.39760  
-.39380  
-.37930  
.00102CP197  
-.37450  
-.37430  
-.37420  
.00004

RUN NO. 458/ 0

LU/DU

XCP/L

CHEI

CHEO

CHETOT

CHBF

CP196

CP197

ALPHA  
7.875BETA  
.170  
GRADIENTLU/DU  
1.90040  
.00000XCP/L  
.66380  
.00000CHEI  
-.12620  
.00000CHEO  
-.05910  
.00000CHETOT  
-.22530  
.00000CHBF  
.02040  
.00000CP196  
-.37620  
.00000CP197  
-.36350  
.00000

RUN NO. 459/ 0

LU/DU

XCP/L

CHEI

CHEO

CHETOT

CHBF

CP196

CP197

ALPHA  
11.633  
11.948  
11.959BETA  
-3.552  
.178  
4.251  
GRADIENTLU/DU  
2.13370  
2.16370  
2.16700  
.00410XCP/L  
.58140  
.62890  
.68390  
.00031CHEI  
-.16390  
-.16200  
-.15760  
.00078CHEO  
-.11650  
-.11540  
-.11930  
-.00042CHETOT  
-.29050  
-.27740  
-.27750  
.00037CHBF  
.00140  
.00320  
.00150  
.00001CP196  
-.40690  
-.39780  
-.39320  
.00161CP197  
-.39510  
-.38080  
-.39040  
.00055

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = 10.000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 460/ 0

XCP/L

CHEI

CHEO

CHETOT

CHBF

CP196

CP197

ALPHA  
-3.043BETA  
.171  
GRADIENTLU/DU  
-1.65390  
.00000XCP/L  
.77510  
.00000CHEI  
-.07370  
.00000CHEO  
-.04240  
.00000CHETOT  
-.11610  
.00000CHBF  
.05970  
.00000CP196  
-.39380  
.00000CP197  
-.38710  
.00000

RUN NO. 461/ 0

LU/DU

XCP/L

CHEI

CHEO

CHETOT

CHBF

CP196

CP197

ALPHA  
.055BETA  
.171  
GRADIENTLU/DU  
-.32230  
.00000XCP/L  
1.09320  
.00000CHEI  
-.07660  
.00000CHEO  
-.04270  
.00000CHETOT  
-.11930  
.00000CHBF  
.05900  
.00000CP196  
-.39490  
.00000CP197  
-.38040  
.00000

AMES 11-073(0A148) -140A/B/C ORBITER

(REBX83) ( 03 FEB 76 )

DATE 08 MAY 76

TABULATED FORCE DATA -- 0A148 ( AMES 11-073-1 )

**PAGE 203**

AMES 11-073(OA148) -140A/B/C ORBITER

(RE8X83) ( 03 FEB 76 )

## REFERENCE DATA

SPRF	=	2690.0000	SQ. FT.	XMRP	=	1075.6800	IN. X0
LRF	=	474.8000	IN.	YMRP	=	.0000	IN. Y0
SPRF	=	936.6500	IN.	ZMRP	=	375.0000	IN. Z0
SCALE	=	.0300					

RUN NO. 462/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/OU	XCP/L	CHET	CHCO	CHTOT	CHBF	CP196	CP197
3.853	-3.876	1.08570	.62390	-.09430	-.06530	-.15960	.06020	-.40120	-.38860
3.908	.109	1.11720	.61930	-.07600	-.06500	-.14410	.05870	-.37120	-.37120
3.913	4.243	1.17070	.63150	-.06450	-.06570	-.13020	.05710	-.39780	-.37920
GRADIENT		.01034	.00094	.00357	-.00005	.00362	-.00038	.00042	-.00116

RUDDER =	10.000	SPOBRK =	.000
BDFLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	15.000	MACH =	1.100

### PARAMETRIC DATA

RUN NO. 463/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RUN NO. 464/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/OU	XCP/L	CHEI	CHEO	CHETOT	CHBF	CP196	CP197
111.886	-3.856	2.14420	.66650	-.15410	-.11400	-.26910	.04220	-.43450	-.41850
111.934	.179	2.15400	.66690	-.15080	-.11200	-.26280	.04150	-.42070	-.40700
111.953	4.251	2.18000	.66910	-.14300	-.10830	-.25130	.04190	-.41090	-.39540
GRADIENT		.00442	.00007	.00137	.00070	.00207	-.00004	.00291	.00273

SREF = 2690.0000 50.FT.    XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN.        YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN.        ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUN NO.	465/ 0	RN/L =	3.59	GRADIENT INTERVAL =	-5.00/ 5.00
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[illegible]

RUN NO.	465/ 0	RN/I =	3.59	GRADIENT INTERVAL =	-5.00/	5.00
---------	--------	--------	------	---------------------	--------	------

[illegible]

RUDDER	=	10.000	SPOBRK	=	.000
BDFLAP	=	-11.700	ELVN-L	=	-10.000
ELVN-B	=	10.000	MACH	=	.900

## REFERENCE DATA

AMES 11-073(OA148) -140A/B/C ORBITER

REF ID: A66824 ( 03 FEB 76 )

### PARAMETRIC DATA

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBX84) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 467/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
3.698	-3.885	1.43020	.55540	-.02150	-.02660	-.04820	.02120	-.24910	-.22790
4.092	.164	1.46820	.53110	-.01110	-.02430	-.03540	.02150	-.23740	-.21520
3.936	4.248	1.56890	.56870	-.00720	-.02550	-.03270	.02730	-.24270	-.23270
	GRADIENT	.01953	.00152	.00176	.00013	.00190	.00075	.00078	-.00060

RUN NO. 468/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
8.008	.163	2.38940	.62950	-.03240	-.05430	-.08570	.03140	-.22670	-.21840
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 469/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
11.969	.169	2.62140	.64090	-.06840	-.07350	-.16230	.04460	-.24320	-.24320
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 470/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
-3.903	.164	-2.83750	.71490	-.01330	-.02030	-.03360	-.00790	-.24060	-.25660
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 471/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	LU/DU	XCP/L	CHE1	CHE0	CHETOT	CHBF	CP196	CP197
10.72	.163	-1.77760	.90310	-.01590	-.02730	-.04320	-.00620	-.23550	-.27590
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 11-073(0A148) -140A/B/C ORBITER

(REBX85) ( 03 FEB 76 )

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REB85) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .600

RUN NO. 472/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
4.077

BETA  
.160  
GRADIENT

LU/DU 1.63690  
XCP/L .53910  
.00000

CHEI -.02060  
CHEO -.03620  
.00000

CHETOT  
CHEF -.00530  
.00000

CP196  
CP197  
-.22480  
-.22830  
.00000

RUN NO. 473/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
8.047

BETA  
.158  
GRADIENT

LU/DU 3.45440  
XCP/L .60930  
.00000

CHEI -.02780  
CHEO -.04780  
.00000

CHETOT  
CHEF -.00640  
.00000

CP196  
CP197  
-.21920  
-.21990  
.00000

RUN NO. 474/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
12.046

BETA  
.156  
GRADIENT

LU/DU 3.90830  
XCP/L .62620  
.00000

CHEI -.04860  
CHEO -.05500  
.00000

CHETOT  
CHEF -.01170  
.00000

CP196  
CP197  
-.22330  
-.22630  
.00000

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REB01) ( 12 AUG 75 )

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 32/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
-4.099  
-4.089  
-4.033

BETA  
-3.681  
.154  
4.236  
GRADIENT

CP200  
CP201  
CP204  
-.33150  
-.36300  
-.36270  
-.32090  
-.33970  
-.35000  
-.00160  
-.00383

CP205  
CP206  
-.37350  
-.37400  
-.32020  
-.34970  
-.36480  
-.33760  
-.36040  
-.00026  
-.00197

CP2  
CP3  
-.35360  
-.37470  
-.34970  
-.36480  
-.33760  
-.36040  
-.00197

CP4  
CP5  
CP6  
-.36170  
-.37680  
-.49560  
-.35920  
-.37790  
-.44740  
-.37000  
-.37000  
-.00084  
-.00028  
-.00189

RUN NO. 33/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
-4.076  
-4.071  
-4.058

BETA  
-3.909  
.147  
4.215  
GRADIENT

CP200  
CP201  
CP204  
-.33380  
-.35000  
-.33210  
-.33130  
-.34770  
-.34090  
-.00112  
-.00213

CP205  
CP206  
-.36030  
-.36400  
-.31400  
-.31490  
-.33980  
-.33190  
-.32520  
-.00030  
-.00138

CP2  
CP3  
-.34320  
-.35990  
-.35010  
-.33980  
-.33190  
-.35230  
-.00393

CP4  
CP5  
CP6  
-.35340  
-.36550  
-.43000  
-.34980  
-.35590  
-.48240  
-.36920  
-.35330  
-.00036  
-.00020  
-.00015

DATE 05 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(REBY01) ( 12 AUG '75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPSPK = 25.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 34/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.555	-3.924	-3.3510	-3.3590	-3.3910	-3.3550	-3.3190	-3.3460	-3.3170	-3.3480	-3.2630	-3.4690
3.556	.146	-3.3550	-3.3620	-3.3420	-3.3460	-3.3140	-3.3300	-3.3420	-3.3460	-3.3460	-3.4690
3.557	.1205	-3.3430	-3.3450	-3.3540	-3.3550	-3.3250	-3.3350	-3.3250	-3.3450	-3.3470	-3.4690
	GRADIENT	-3.3510	.00331	-3.00152	-3.00025	-3.00016	.00125	.00165	-3.00029	.00069	-3.00110

RUN NO. 35/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP210	CP211	CP214	CP215	CP1	CP2	CP3	CP4	CP5	CP6
7.559	-3.903	-3.3510	-3.3590	-3.3910	-3.3550	-3.3190	-3.3460	-3.3170	-3.3480	-3.2630	-3.4690
7.559	.143	-3.3550	-3.3620	-3.3420	-3.3460	-3.3140	-3.3300	-3.3420	-3.3460	-3.3460	-3.4690
7.560	.1207	-3.3430	-3.3450	-3.3540	-3.3550	-3.3250	-3.3350	-3.3250	-3.3450	-3.3470	-3.4690
	GRADIENT	-3.3510	.00331	-3.00152	-3.00025	-3.00016	.00125	.00165	-3.00029	.00069	-3.00110

RUN NO. 58/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP210	CP211	CP214	CP215	CP1	CP2	CP3	CP4	CP5	CP6
11.074	-3.894	-3.3510	-3.3590	-3.3910	-3.3550	-3.3190	-3.3460	-3.3170	-3.3480	-3.2630	-3.4690
11.075	.151	-3.3550	-3.3620	-3.3420	-3.3460	-3.3140	-3.3300	-3.3420	-3.3460	-3.3460	-3.4690
11.076	.1219	-3.3430	-3.3450	-3.3540	-3.3550	-3.3250	-3.3350	-3.3250	-3.3450	-3.3470	-3.4690
	GRADIENT	-3.3510	.00331	-3.00152	-3.00025	-3.00016	.00125	.00165	-3.00029	.00069	-3.00110

RUN NO. 59/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP210	CP211	CP214	CP215	CP1	CP2	CP3	CP4	CP5	CP6
15.074	-3.882	-3.3510	-3.3590	-3.3910	-3.3550	-3.3190	-3.3460	-3.3170	-3.3480	-3.2630	-3.4690
15.075	.149	-3.3550	-3.3620	-3.3420	-3.3460	-3.3140	-3.3300	-3.3420	-3.3460	-3.3460	-3.4690
15.076	.1249	-3.3430	-3.3450	-3.3540	-3.3550	-3.3250	-3.3350	-3.3250	-3.3450	-3.3470	-3.4690
	GRADIENT	-3.3510	.00331	-3.00152	-3.00025	-3.00016	.00125	.00165	-3.00029	.00069	-3.00110

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITTER

(RE8Y02) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 38/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.081	-3.898	-35560	-39350	-36880	-40790	-35110	-39210	-41310	-39760	-41820	-57000
-4.075	.154	-35640	-39090	-35180	-39760	-34480	-37640	-39580	-39530	-40560	-53680
-4.093	4.234	-37140	-37680	-37540	-40000	-35280	-36780	-38750	-36510	-41640	-57890
	GRADIENT	-00072	.00207	-00082	.00097	-00021	.00299	.00315	.00154	.00022	-00110

RUN NO. 39/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.37	-3.909	-37180	-38640	-37090	-39260	-34780	-38130	-39390	-39720	-40490	-57190
-0.32	.147	-36220	-36570	-35930	-36530	-33920	-36340	-38520	-36820	-38730	-53770
-0.38	4.211	-36950	-36060	-39470	-37730	-35570	-35640	-38090	-37930	-40380	-59940
	GRADIENT	-00206	.00318	-00293	.00188	-00097	.00307	.00161	.00102	.00013	-00216

RUN NO. 40/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.839	-3.910	-37270	-36590	-37460	-39410	-35110	-38410	-39160	-38340	-39560	-58020
3.859	.139	-37240	-37570	-37860	-39190	-34590	-37150	-38970	-37560	-38970	-53650
3.860	4.204	-39290	-37550	-39440	-38630	-35880	-35360	-38050	-37580	-39280	-58960
	GRADIENT	-00249	.00127	-00244	.00096	-00095	.00253	.00136	.00354	.00034	-00117

RUN NO. 41/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.842	-3.905	-39290	-40190	-39300	-41480	-36930	-40210	-41600	-40140	-40570	-57510
7.841	.143	-39220	-40050	-39480	-41700	-36680	-39530	-40440	-39580	-40370	-54770
7.841	4.209	-39760	-39110	-40090	-41890	-36840	-38710	-39260	-39070	-40240	-58070
	GRADIENT	-00060	.00133	-00147	-00049	.00011	.00165	.00288	.00132	.00041	-00070

RUN NO. 42/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.942	-3.887	-41660	-41380	-41350	-42090	-39010	-41530	-43250	-41750	-41390	-57580
11.952	.148	-40530	-42110	-40150	-44160	-37930	-41720	-42130	-41530	-42150	-55720
11.946	4.215	-41330	-41980	-41780	-44940	-38460	-41200	-40980	-40000	-41610	-58520
	GRADIENT	.00040	-00074	-00054	-00352	.00068	.00041	.00280	.00216	-00027	-00119





REFERENCE DATA

SPEF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LPEF = 474.8000 IN. YMRP = .0000 IN. YO  
 SPEF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 48/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.893	-3.893	-31220	-30350	-32030	-34230	-29780	-29080	-35770	-32010	-35100	-52590
-4.035	.153	-30050	-32070	-30710	-34790	-28810	-30580	-36520	-32500	-33960	-49380
-4.047	4.237	-30060	-33440	-30370	-36190	-29210	-31130	-34760	-31900	-35140	-54740
	GRADIENT	.00143	-0.00379	.00204	-0.0242	.00070	-0.0252	.00125	.00014	-0.00026	-0.00267

RUN NO. 49/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.907	-3.907	-31460	-31050	-30480	-34780	-29190	-29710	-36280	-32520	-33740	-53370
-4.055	.144	-28790	-30960	-29510	-33350	-27240	-29640	-35520	-31050	-33020	-49700
-4.067	4.215	-30190	-32180	-31310	-35270	-29310	-31830	-34490	-31710	-33390	-56100
	GRADIENT	.00156	-0.00139	-0.00112	-0.0061	.00015	-0.0261	.00220	.00100	-0.0043	-0.00337

RUN NO. 50/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.912	-3.912	-29350	-31980	-29680	-33840	-28210	-31680	-35330	-31630	-32570	-53020
-4.066	.152	-29310	-30070	-28660	-31800	-27300	-29990	-33140	-30020	-32830	-50570
-4.099	4.209	-29550	-30010	-31230	-31370	-28090	-29000	-33990	-30520	-32190	-53880
	GRADIENT	.00037	.00243	-0.00191	.00304	.00015	.00330	.00176	.00137	.00047	-0.00166

RUN NO. 51/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.903	-3.903	-26230	-30510	-29460	-31820	-27340	-30640	-33750	-30020	-30470	-52010
-4.093	.140	-26560	-28470	-29330	-30000	-27050	-28580	-32480	-29420	-30860	-47280
-4.209	4.209	-29780	-27670	-30330	-28700	-27730	-27280	-31500	-26360	-29920	-52970
	GRADIENT	-0.00184	.00350	-0.00107	.00385	-0.00048	.00414	.00277	.00265	.00068	-0.00120

RUN NO. 52/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.890	-3.890	-29220	-28890	-31330	-31350	-27260	-29370	-34380	-31520	-33010	-55280
-4.093	.152	-28840	-28790	-30030	-30610	-27130	-27710	-32830	-29420	-32750	-53410
-4.222	4.222	-30200	-31130	-30610	-32720	-27470	-26770	-32000	-30120	-33030	-57250
	GRADIENT	-0.00035	-0.00153	.00088	-0.00169	-0.00026	.00330	.00293	.00172	-0.00033	-0.00121

PARAMETRIC DATA

RUDDER = .000 SPD8RK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .900



DATE 02 JUL 76  
 TABULATED FORCE DATA - 04148 ( AMES 11-073-1 )  
 AMES 11-073(04148) -140A/B/C/R ORBITER

(FFBYCS) ( 12 AUG 75 )

PARAMETRIC DATA

RODGER = .000  
 BDFLAP = 16.300  
 ELVA-R = .000  
 SPCERK = 55.000  
 ELVA-L = .000  
 WICH = .000

REFERENCE DATA

SPER = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 B-REF = 935.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 57/ 0 P/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
12.000	-7.093	-26750	-26750	-26750	-31070	-23380	-28190	-33280	-30380	-23380	-62570
12.000	-3.877	-26750	-26750	-26750	-29170	-22110	-28190	-33280	-30380	-23380	-59230
12.000	1.150	-26750	-26750	-26750	-27130	-22730	-28190	-33280	-30380	-23380	-55160
12.000	4.211	-26750	-26750	-26750	-23430	-22660	-28190	-33280	-30380	-23380	-55430
12.000	8.278	-26750	-26750	-26750	-22640	-21120	-28190	-33280	-30380	-23380	-63800
GRADIENT		.00162	.00126	.00352	.00112	.00160	.00341	.00320	.00133	.00111	.00005

AMES 11-073(04148) -140A/B/C/R ORBITER

(FFBYCS) ( 12 AUG 75 )

PARAMETRIC DATA

RODGER = .000  
 BDFLAP = 32.500  
 ELVA-R = .000  
 SPCERK = 55.000  
 ELVA-L = .000  
 WICH = .000

REFERENCE DATA

SPER = 2590.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 B-REF = 935.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 60/ 0 P/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
12.000	-7.883	-26750	-30520	-26350	-33240	-27560	-29250	-35950	-30720	-33580	-62570
12.000	-3.877	-26750	-29530	-26350	-32040	-26890	-28740	-35740	-30520	-30520	-59230
12.000	1.154	-26750	-30020	-26350	-33230	-27240	-29310	-35320	-30520	-30520	-55650
12.000	4.235	-26750	-30830	-26210	-32750	-27050	-29220	-34930	-30520	-30520	-61820
12.000	8.308	-26750	-30000	-26240	-31670	-27060	-28330	-31530	-27320	-30730	-68580
GRADIENT		.00112	.00160	.00021	.00097	.00031	.00145	.00032	.00187	.00133	.00019

RUN NO. 61/ 0 P/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
12.000	-7.929	-26750	-29990	-27420	-33090	-27260	-29970	-35580	-30190	-30520	-62570
12.000	-3.877	-26750	-29560	-27420	-32440	-28640	-29560	-35580	-30190	-30520	-62270
12.000	1.147	-26750	-29910	-26120	-32050	-28160	-29160	-34840	-30190	-30520	-55030
12.000	4.214	-26750	-30750	-26120	-33110	-28320	-29720	-34840	-30190	-30520	-62270
12.000	8.289	-26750	-30830	-26330	-33030	-27350	-29220	-34840	-30190	-30520	-62270
GRADIENT		.00162	.00146	.00037	.00070	.00031	.00146	.00033	.00188	.00133	.00019

DATE CB MAY 76

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AMES 11-073(OA148) - 140A/B/C/R ORBITER  
TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

(REF8Y06) 1 12 AUG 75 )

## REFERENCE DATA

=	SREF	=	2690.0000	50. FT.	XMRP	=	1076.6800	IN.	XO
=	LREF	=	474.6000	IN.	YMRP	=	.0000	IN.	YO
=	BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	ZO
=	SCALE	=	.0300						

RUDDER	=	.000	SFDRK	=	55.000
BDFLAP	=	22.500	ELVN-L	=	.000
ELVN-R	=	.000	MACH	=	.600

## PARAMETRIC DATA

RM NO.	62/ 0	RN/L = 4.81	GRADIENT INTERVAL = -5.00/ 5.00
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ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.311	-7.932	-23623	-30400	-28280	-32860	-27240	-30330	-35990	-31730	-31350	-64920
3.915	-3.837	-27933	-29570	-27560	-31960	-27050	-29800	-35270	-30660	-30620	-58480
3.912	1.10	-27930	-29580	-27560	-30570	-25980	-29130	-31950	-27650	-31930	-54200
3.321	4.204	-28310	-28410	-28410	-33090	-27010	-30250	-34010	-28330	-31430	-59790
3.913	8.1248	-28310	-27870	-30930	-29470	-27710	-27640	-31790	-28220	-31090	-53710
CP40151	0.0025	-00023	-00025	-00105	-00138	.00005	-00056	.00155	.00305	-00150	-00162

E.J. NO.	63/ 3	RN/L =	4.82	GRADIENT INTERVAL =	-5.00'	5.00
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[illegible]

RUN NO.	64/ 0	RN/L = 3.86	GRADIENT INTERVAL = -5.00/	5.00
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ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
2.009	-7.872	-2850	-29820	-28520	-31650	-25540	-30220	-36110	-31650	-31240	-66440
2.035	-3.82	-2690	-27200	-27250	-29890	-24860	-30210	-35420	-29900	-27970	-56350
2.035	140	-2730	-26650	-27970	-29050	-24690	-27270	-31880	-26260	-30070	-55470
1.949	4.211	-29050	-25550	-29580	-28240	-24930	-26450	-32360	-25900	-29090	-55470
2.026	2.275	-30770	-26700	-30770	-30100	-26210	-26140	-28170	-27590	-33220	-70410
	GRADIENT	-00267	00080	-00289	00204	-00009	00230	00377	00482	-00136	-00015

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY07) ( 03 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.009	-3.876	-34290	-34740	-34670	-37100	-32740	-34600	-38560	-35830	-37690	-52350
-4.048	.153	-34140	-34760	-33800	-38000	-32310	-34470	-38370	-35230	-36360	-46650
-4.057	4.237	-33440	-35990	-33440	-38640	-32230	-35610	-37720	-33980	-38050	-52580
	GRADIENT	.00105	-0.0154	.00151	-0.00190	.00063	-0.00125	.00104	.00241	-0.00045	-0.0030

RUN NO. 0/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.010	-3.903	-35030	-34560	-29000	-35820	-32900	-35460	-38480	-35000	-36920	-53750
.014	.148	-31760	-32300	-32990	-35060	-31190	-32890	-35700	-32650	-35030	-49300
.013	4.211	-33560	-34360	-33530	-37550	-32320	-35330	-36210	-33240	-36230	-54980
	GRADIENT	.00175	-0.0050	.00554	-0.00213	.00071	.00016	.00280	.00204	.00085	-0.00152

RUN NO. 0/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.598	-3.905	-32640	-32170	-33850	-34450	-30400	-32710	-36140	-32060	-34000	-52690
3.002	.135	-32540	-32630	-32010	-33280	-30460	-33010	-35840	-33180	-35070	-50280
3.320	4.205	-33270	-32530	-34550	-35750	-30630	-32990	-36130	-32760	-35050	-54130
	GRADIENT	-0.00079	-0.00044	-0.00086	-0.00161	-0.00028	-0.00034	.00001	-0.00086	-0.00129	-0.00179

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.946	-3.900	-33200	-32930	-32930	-33770	-31350	-33740	-38240	-34920	-34150	-53440
7.956	.143	-33580	-32190	-32740	-34370	-30480	-32850	-35980	-33090	-34670	-49920
7.955	4.205	-34130	-33300	-35110	-35180	-31520	-32870	-34860	-32140	-35100	-55170
	GRADIENT	-0.00115	-0.00001	-0.00262	-0.00174	-0.00021	.00107	.00417	.00343	-0.00117	-0.00214

RUN NO. 0/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.987	-3.685	-35500	-32930	-35070	-33520	-32670	-33130	-39920	-35760	-36430	-58690
11.997	.148	-34060	-31290	-33750	-33290	-31130	-31370	-35080	-32750	-34310	-54270
11.997	4.223	-32790	-34620	-34390	-38440	-31950	-34740	-35080	-32010	-35460	-59110
	GRADIENT	.00234	-0.00233	.00083	-0.00608	.00587	-0.00200	.00596	.00462	-0.00004	-0.00029

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
AMES 11-073(0A148) -140A/B/C/R ORBITER

PAGE 214  
(REBY08) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.6000 IN. YMRP = .0000 IN. YO  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER =  
BDFLAP =  
ELVN-R =

SPDBRK = 65.000  
ELVN-L = .000  
MACH = 1.400

PARAMETRIC DATA

RUN NO.		71/ 0	RN/L =	2.92	GRADIENT INTERVAL = -5.00/ 5.00						
ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.017	-3.894	-32880	-36100	-31350	-37110	-32760	-35450	-37750	-37220	-40700	-51770
-3.866	.155	-32870	-36690	-31460	-37830	-32660	-35580	-39080	-36780	-39890	-50400
-4.312	4.241	-33350	-35350	-32130	-37460	-33190	-34940	-36770	-36550	-39190	-54630
	GRADIENT	-0.0052	.00019	-0.00096	-0.00043	-0.00053	.00063	.00121	.00070	.00165	-0.00353
RUN NO.		72/ 0	RN/L =	2.92	GRADIENT INTERVAL = -5.00/ 5.00						
ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.007	-3.999	-33190	-35130	-32570	-37110	-32690	-36020	-38600	-37090	-40400	-53340
-0.011	.155	-34150	-35970	-34460	-37470	-32760	-34920	-37440	-36640	-40240	-51690
-0.036	4.218	-34640	-35520	-34900	-37330	-33450	-34720	-37040	-36970	-39910	-55170
	GRADIENT	-0.00165	.00075	-0.00287	-0.00027	-0.00094	.00160	.00192	.00015	.00050	-0.00226
RUN NO.		73/ 0	RN/L =	2.92	GRADIENT INTERVAL = -5.00/ 5.00						
ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.849	-3.903	-35730	-34710	-36640	-35020	-33440	-34280	-37800	-36220	-39180	-53190
3.967	.154	-36020	-35140	-36690	-35780	-33270	-33820	-36290	-35070	-38570	-53360
3.885	4.209	-35350	-36430	-35930	-38570	-33430	-35610	-35830	-36190	-39530	-54530
	GRADIENT	.00047	-0.00012	.00087	-0.00437	.00001	-0.00164	.00243	.00004	-0.00043	-0.00165
RUN NO.		74/ 0	RN/L =	2.92	GRADIENT INTERVAL = -5.00/ 5.00						
ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.858	-3.901	-37460	-35510	-37600	-37410	-35480	-36560	-38190	-37020	-39100	-53530
7.941	.144	-36920	-36660	-37420	-37090	-34890	-36870	-37040	-35990	-38330	-53660
7.942	4.207	-36390	-37510	-36200	-39250	-34820	-36670	-36190	-35420	-40020	-55670
	GRADIENT	.00132	-0.00123	.00173	-0.00227	.00081	-0.00001	.00247	.00197	-0.00114	-0.00244
RUN NO.		75/ 0	RN/L =	2.92	GRADIENT INTERVAL = -5.00/ 5.00						
ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.890	-3.886	-39900	-39040	-38330	-38160	-36140	-38710	-39230	-37950	-39350	-52850
11.837	.146	-39660	-39180	-39510	-39220	-36390	-38660	-38620	-38140	-39530	-54450
11.853	4.224	-39630	-39390	-39800	-40420	-37580	-39950	-39400	-36410	-41540	-55060
	GRADIENT	-0.00109	-0.00167	-0.00058	-0.00279	-0.00178	-0.00153	-0.00021	.00191	-0.00270	-0.00272

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y08) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUN NO. 76/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
15.955	-3.053	-40400	-40260	-36990	-41530	-38010	-40310	-39710	-39990	-42550	-54760
15.959	.144	-40920	-40630	-38150	-41560	-37980	-40740	-40660	-39950	-41240	-56280
15.958	4.250	-40490	-41280	-38430	-43340	-39020	-40770	-40340	-37520	-43600	-56290
	GRADIENT	-00011	-00138	.00058	-00224	-00001	-00056	-00077	.00292	-00130	-00189

## PARAMETRIC DATA

RUDDER = .000  
 BOFLAP = 22.500  
 ELVN-R = .000  
 ELVN-L = 85.000  
 MACH = 1.400

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y09) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUN NO. 77/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.026	-3.892	-36230	-39450	-35300	-40290	-36110	-39300	-43200	-42030	-49890	-65990
-4.017	.155	-37390	-37930	-34680	-39650	-35000	-37930	-41420	-40630	-42600	-61140
-4.025	4.236	-37040	-39400	-36400	-41100	-36520	-37450	-39750	-39660	-48120	-66230
	GRADIENT	-00100	.00129	-00136	-00100	-00051	.00228	.00425	.00292	.00191	-00032

## PARAMETRIC DATA

RUDDER = .000  
 BOFLAP = 22.500  
 ELVN-R = .000  
 ELVN-L = 85.000  
 MACH = 1.250

RUN NO. 78/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.013	-3.903	-37430	-39250	-37410	-40440	-36280	-39360	-42900	-41040	-44890	-63350
.017	.152	-37390	-38390	-36250	-40300	-36080	-38550	-40900	-39590	-43360	-58050
.013	4.217	-39380	-38450	-40150	-40500	-37010	-37700	-40360	-39910	-45680	-66200
	GRADIENT	-00240	.00098	-00338	-00007	-00090	.00204	.00313	.00139	-00098	-00352

RUN NO. 79/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.907	-3.907	-39250	-39600	-40530	-40510	-37520	-39530	-42550	-40950	-43600	-62650
3.907	.148	-40280	-40350	-41280	-41550	-38090	-39980	-42620	-40770	-43580	-54540
3.911	4.237	-40110	-39300	-40760	-42190	-38180	-39400	-40810	-39060	-45100	-64760
	GRADIENT	-00057	-00037	-00028	-00207	-00081	.00016	.00214	.00221	-00165	-00260

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 216

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY09) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .600  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 80/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.933	-3.903	-4.2400	-4.1500	-4.2830	-4.2020	-4.0260	-4.1700	-4.3720	-4.2040	-4.4700	-5.9940
7.899	.143	-4.2590	-4.2280	-4.2800	-4.2830	-4.0790	-4.2950	-4.3450	-4.2420	-4.3230	-5.3860
7.857	4.208	-4.1810	-4.3240	-4.1620	-4.5270	-4.0100	-4.3050	-4.2670	-4.0490	-4.7460	-6.3140
	GRADIENT	.00073	-0.02215	.00149	-0.00401	.00020	-0.03166	.00130	.00191	-0.00341	-0.00395

RUN NO. 81/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.893	-3.865	-4.4200	-4.3990	-4.3150	-4.4510	-4.2210	-4.4580	-4.5350	-4.3770	-4.6110	-5.7140
11.849	.145	-4.3720	-4.4460	-4.2900	-4.6030	-4.1710	-4.4510	-4.4990	-4.4200	-4.4510	-5.3730
11.848	4.220	-4.4430	-4.4580	-4.4600	-4.6560	-4.2260	-4.4610	-4.4420	-4.2360	-4.7130	-6.1160
	GRADIENT	-0.00029	-0.00073	-0.00179	-0.00253	-0.00006	-0.00004	.00115	.00172	-0.00127	-0.00438

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 82/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.037	-3.893	-4.1080	-4.2750	-4.1360	-4.4420	-3.9680	-4.3280	-4.8270	-4.5800	-6.8430	-7.6530
-4.035	.155	-4.1030	-4.1360	-4.1500	-4.3730	-3.9400	-4.1700	-4.5800	-4.3290	-5.5290	-6.1760
-4.042	4.235	-4.2370	-4.3350	-4.2990	-4.6600	-4.0400	-4.2010	-4.5830	-4.3520	-6.2710	-7.1440
	GRADIENT	-0.00159	-0.00075	-0.00201	-0.00269	-0.00089	.00156	.00335	.00290	.00454	.00622

RUN NO. 83/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.020	-3.899	-4.0750	-4.2900	-4.1160	-4.3400	-3.9540	-4.1790	-4.7060	-4.44380	-5.3840	-6.8630
.025	.152	-4.0220	-4.0460	-4.1050	-4.2970	-3.8700	-4.0720	-4.4530	-4.1660	-4.9350	-5.6250
.023	4.214	-4.1760	-4.0660	-4.2820	-4.4270	-3.9620	-4.0270	-4.3340	-4.1800	-5.3680	-6.5530
	GRADIENT	-0.00125	.00276	-0.00180	.00085	-0.00010	.00187	.00458	.00318	.00019	.00504

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY10) ( 12 AUG 75 )



TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY10) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER = .000 SPDRK = 85.000  
BDFLAP = 22.500 ELVN-L = .000  
ELVN-R = .000 MACH = 1.100

PARAMETRIC DATA

RUN NO. 84/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.934	-3.903	-42730	-42810	-43350	-43590	-41090	-42940	-47660	-45480	-50170	-66580
3.930	.149	-42720	-42820	-42900	-44230	-40550	-42750	-45790	-43250	-46920	-62600
3.934	4.204	-43310	-43330	-43470	-46420	-41700	-44120	-45520	-42970	-51110	-66460
	GRADIENT	-00072	-00169	-00015	-00349	-00075	-00146	-00264	-00310	-00116	-00015

RUN NO. 85/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.882	-3.899	-45340	-45530	-46440	-45860	-44200	-46040	-50940	-48580	-51630	-68650
7.887	.144	-45110	-45110	-45640	-45830	-43030	-44970	-48530	-46310	-47730	-63560
7.888	4.205	-46170	-46720	-49310	-49350	-44360	-47410	-48180	-45700	-52630	-67360
	GRADIENT	-00029	-00147	-00055	-00419	-00020	-00169	-00328	-00355	-00124	-00158

RUN NO. 86/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.921	-3.873	-49150	-49740	-47740	-49290	-46280	-47860	-52050	-49610	-51830	-67820
11.930	.146	-46940	-47630	-47940	-50930	-44170	-47040	-49750	-47760	-49050	-63270
11.928	4.214	-49430	-49500	-50430	-51630	-47030	-49020	-49340	-47010	-54140	-68940
	GRADIENT	-00036	-00029	-00333	-00289	-00094	-00020	-00335	-00321	-00289	-00141

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER = .000 SPDRK = 85.000  
BDFLAP = 22.500 ELVN-L = .000  
ELVN-R = .000 MACH = .900

PARAMETRIC DATA

RUN NO. 87/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.057	-3.873	-36430	-35260	-36350	-37780	-35300	-36520	-42490	-37660	-39070	-45980
-4.047	.148	-35120	-35430	-35070	-39980	-35180	-36950	-40820	-35800	-35340	-42680
-4.057	4.239	-35020	-35290	-34930	-41220	-35170	-38120	-40750	-37660	-38790	-44700
	GRADIENT	-00173	-00177	-00164	-00424	-00016	-00198	-00214	-00023	-00091	-00156



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 219

AMES 11-073(CA148) -140A/B/C/R ORBITER

(REBY12) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.5000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RUDDER = .000 SPCBRK = 85.000  
BDFLAP = 22.500 ELVN-L = .000  
ELVN-R = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 92/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-7.057	-7.899	-30350	-33550	-28130	-35670	-30450	-32990	-42620	-35360	-39780	-61220
-4.036	-3.874	-30350	-33140	-29330	-36360	-30740	-33140	-41840	-35090	-37400	-57570
-4.017	.163	-30460	-32940	-28580	-37140	-30690	-33480	-41840	-34830	-35830	-55470
-4.026	4.334	-29050	-34120	-27850	-37260	-30780	-34010	-40970	-34340	-37760	-57380
-4.045	8.307	-30160	-32560	-29730	-34290	-31140	-32430	-36930	-35010	-39240	-61560
	GR. VIENT	.00164	-.00121	.00183	-.00111	-.00005	-.00107	.00120	.00093	-.00045	.00023

RUN NO. 93/ 0

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-7.047	-7.924	-30840	-32720	-28590	-36420	-30790	-32810	-41290	-34950	-38040	-63110
-4.037	-3.897	-30390	-33600	-29790	-35350	-30340	-32810	-41480	-34690	-37040	-59780
-4.059	.160	-29780	-32930	-29320	-35380	-29930	-31830	-40040	-33690	-36290	-57560
-4.062	4.215	-29540	-33790	-28040	-37540	-30490	-34480	-36200	-34050	-37990	-59460
-4.071	8.271	-30170	-33150	-29720	-35900	-31280	-32920	-37590	-32950	-39160	-65500
	GRADIENT	.00165	-.00145	.00216	-.00270	-.00018	-.00206	.00330	.00067	-.00117	.00039

RUN NO. 94/ 0

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-7.937	-7.937	-30040	-32250	-29710	-35950	-29850	-33650	-40050	-35070	-37010	-64400
-3.958	-3.899	-30740	-31620	-29030	-34980	-29530	-32670	-39930	-34540	-36300	-59340
-3.957	.162	-30570	-31650	-29370	-34920	-29330	-31490	-38170	-32370	-35050	-59610
-3.954	4.202	-30390	-32630	-29620	-35490	-29260	-32620	-38210	-32370	-35450	-59070
-3.960	8.252	-31390	-30970	-32340	-34510	-31130	-31550	-35570	-32510	-35730	-66470
	GRADIENT	.00045	-.00132	-.00102	-.00063	-.00028	.00019	.00213	.00194	-.00018	.00033

RUN NO. 95/ 0

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-7.904	-7.922	-30820	-33030	-29300	-35170	-29860	-33440	-39060	-35270	-35170	-59980
-7.913	-3.891	-30340	-31150	-29570	-34930	-29830	-31690	-38780	-33010	-36000	-60570
-7.912	.160	-30330	-30930	-30030	-33780	-29180	-31120	-35510	-32020	-35050	-59870
-7.910	4.204	-31060	-31370	-31160	-34650	-29730	-31450	-37510	-32550	-35100	-61870
-7.939	8.255	-33180	-30110	-33300	-33320	-30350	-30300	-36390	-32730	-36820	-59840
	GRADIENT	-.00089	-.00027	-.00308	.00027	-.00136	.00030	.00145	.00356	-.00012	.00160

1675Y12 ( 12 AUG 75 )

## REFERENCE DATA

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SREF = 2630.0000 SQ. FT.      XMRP = 1076.6802 IN. XO
LREF = 474.8500 IN.          YMRP = .0000 IN. YO
BREF = 375.0000 IN.          ZMRP = 375.0000 IN. ZO
SCALE = .0000

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RUDDER =  
BOFLAP =  
ELVN-R =

6.13.12	95/0	4.82	GRADIENT INTERVAL = -5.00/ 5.00
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27/	291	GRADIENT INTERVAL =	-5.00/	5.00
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Est. No.	99% CI	RN/L	2.92	GRADIENT	INTERVAL =	-5.00/	5.00
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AMES 11-073(OA148) -140A/B/C/H CRBITER

REF 131 12 AUG 75

**SECRET**

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Variable	Mean	Standard Deviation	Minimum	Maximum
Age	2.91	1.00	1.00	5.00
Gender	1.50	0.50	1.00	2.00
Marital Status	1.50	0.50	1.00	2.00
Education	3.50	1.00	1.00	5.00
Income	2.50	1.00	1.00	5.00
Health	3.50	1.00	1.00	5.00
Stress	3.50	1.00	1.00	5.00
Life Satisfaction	3.50	1.00	1.00	5.00
Depression	2.50	1.00	1.00	5.00
Loneliness	2.50	1.00	1.00	5.00
Self-Esteem	3.50	1.00	1.00	5.00
Resilience	3.50	1.00	1.00	5.00
Optimism	3.50	1.00	1.00	5.00
Gratitude	3.50	1.00	1.00	5.00
Forgiveness	3.50	1.00	1.00	5.00
Empathy	3.50	1.00	1.00	5.00
Compassion	3.50	1.00	1.00	5.00
Kindness	3.50	1.00	1.00	5.00
Generosity	3.50	1.00	1.00	5.00
Patience	3.50	1.00	1.00	5.00
Humility	3.50	1.00	1.00	5.00
Modesty	3.50	1.00	1.00	5.00
Shyness	3.50	1.00	1.00	5.00
Introversion	3.50	1.00	1.00	5.00
Extroversion	3.50	1.00	1.00	5.00
Social Skills	3.50	1.00	1.00	5.00
Communication	3.50	1.00	1.00	5.00
Interpersonal Skills	3.50	1.00	1.00	5.00
Teamwork	3.50	1.00	1.00	5.00
Leadership	3.50	1.00	1.00	5.00
Problem Solving	3.50	1.00	1.00	5.00
Decision Making	3.50	1.00	1.00	5.00
Time Management	3.50	1.00	1.00	5.00
Organization	3.50	1.00	1.00	5.00
Productivity	3.50	1.00	1.00	5.00
Efficiency	3.50	1.00	1.00	5.00
Quality of Work	3.50	1.00	1.00	5.00
Job Satisfaction	3.50	1.00	1.00	5.00
Work-Life Balance	3.50	1.00	1.00	5.00
Overall Well-Being	3.50	1.00	1.00	5.00

CPA	CPB	CP6
33520	33720	42360
33530	33790	43160
33550	34110	44570
33900	35040	400285

Est. No.	99% CI	RN/L	2.92	GRADIENT	INTERVAL =	-5.00/	5.00
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2085	...	

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY13) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 935.6000 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.981	-3.904	-33710	-33900	-34190	-34050	-31720	-32440	-34560	-33270	-33200	-42170
7.933	.128	-32550	-33920	-33190	-33750	-30340	-32390	-32630	-31590	-32490	-40560
7.934	4.214	-32910	-33330	-33790	-34570	-30630	-32590	-32530	-31730	-32250	-42900
	GRADIENT	.00098	-.00115	.00049	-.00064	.00134	-.00030	.00254	.00189	.00117	-.00091

RUN NO. 101/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.894	-3.897	-34690	-33930	-34900	-33210	-32690	-32940	-35720	-33790	-33770	-42750
11.891	.152	-33450	-34750	-34450	-33990	-31550	-33280	-34520	-33210	-33750	-42180
11.887	4.223	-33970	-33330	-34210	-35750	-32300	-33210	-34780	-33710	-33710	-43840
	GRADIENT	.00100	-.00228	.00065	-.00435	.00145	-.00280	.00116	.00310	.00007	-.00135

RUN NO. 102/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
15.853	-3.883	-33710	-33650	-37070	-34550	-34000	-33380	-37820	-35670	-35860	-45760
15.855	.152	-34850	-37300	-34360	-39300	-33410	-35700	-37350	-35340	-35910	-44840
15.903	4.263	-37050	-35570	-37400	-38800	-33700	-37490	-36510	-34870	-36160	-51530
	GRADIENT	-.00040	-.00615	-.00043	-.00519	.00036	-.00506	.00149	.00399	-.00037	-.00346

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY14) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 935.6000 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
15.853	-3.884	-34240	-37260	-35170	-36540	-32970	-35810	-39100	-35490	-37170	-52560
15.855	.149	-33970	-36310	-34600	-37530	-32310	-34530	-35750	-35030	-35850	-48390
15.909	4.237	-35670	-37000	-36210	-38660	-33200	-34420	-35750	-33420	-37540	-53510
	GRADIENT	-.00177	.00032	-.00129	-.00018	-.00029	.00118	.00285	.00307	-.00047	-.00119

RUN NO. 103/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

RUDDER = .000  
BDFLAP = .000  
ELVN-R = .000

SPDBRK = 35.000  
ELVN-L = .000  
MACH = 1.250

PARAMETRIC DATA



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 AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY15) ( 12 AUG 75 )

PARAMETRIC DATA

RUDDER = .000  
 BDFLAP = .000  
 ELVN-L = .000  
 ELVN-R = .000  
 SPDRK = 35.000  
 ELVN-L = .000  
 MACH = 1.100

REFERENCE DATA

SPEF = 2630.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 GREF = 926.6500 IN.  
 SCALE = .0300  
 XMRP = 1076.6900 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUN NO. 108/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP203	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.931	-3.851	-39310	-39370	-40610	-35260	-38760	-33220	-35710	-33140	-33140
3.932	-3.851	-37330	-38100	-38910	-35170	-38360	-33260	-36690	-37340	-55770
3.933	4.283	-40450	-40630	-40350	-38260	-37640	-40380	-36550	-40170	-57920
	GRADIENT	-00264	-00168	-00034	-00249	-00137	-00094	-00264	-00128	-00034

RUN NO. 109/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.011	-3.863	-36380	-37730	-38650	-34460	-37450	-33170	-33480	-37020	-59960
-0.014	1.83	-37350	-38080	-38430	-33920	-35350	-37190	-35140	-35740	-57790
-0.007	4.223	-39430	-40240	-40020	-35810	-36210	-39750	-39330	-35940	-56990
	GRADIENT	-00354	-00309	-00144	-00290	-00152	-00195	-00357	-00224	-00119

RUN NO. 110/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.931	-3.870	-39220	-40460	-40290	-36160	-39150	-40150	-38240	-36830	-60850
3.932	1.83	-38520	-39430	-39520	-35170	-37150	-38230	-37100	-37490	-59800
3.933	4.249	-40330	-40910	-41770	-37620	-37140	-40390	-39480	-38380	-56860
	GRADIENT	-00133	-00055	-00162	-00160	-00124	-00030	-00153	-00191	-00491

RUN NO. 111/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP210	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.894	-3.855	-42240	-42500	-42450	-38330	-40050	-43450	-40740	-38200	-60180
7.925	1.79	-36350	-36610	-35540	-35550	-37100	-35550	-37340	-37170	-60020
7.956	4.242	-41220	-41730	-43330	-39010	-39350	-40310	-39760	-38490	-59020
	GRADIENT	-00125	-00135	-00115	-00101	-00048	-00010	-00120	-00038	-00267

RUN NO. 112/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.925	-3.850	-41570	-41690	-42430	-38460	-41120	-43550	-39350	-39310	-59540
11.933	1.77	-40960	-41730	-41490	-37190	-41010	-40720	-35220	-35430	-62280
11.928	4.259	-41920	-42300	-42930	-39770	-41830	-40470	-39300	-39180	-57690
	GRADIENT	-00031	-00066	-00062	-00037	-00068	-00073	-00073	-00107	-00230







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(REBY17) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP  
LREF = 474.8000 IN. YMRP  
BREF = 936.6800 IN. ZMRP  
SCALE = .0300

0 1. X0  
0 1. Y0  
0 1. Z0

RUDDER =  
BDFLAP =  
ELVN-R =

.000 SPOBRK = 35.000  
.000 ELVN-L = .000  
.000 MACH = .600

PARAMETRIC DATA

RUN NO. 123/ 0 RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.926	-7.855	-27810	-23630	-31930	-27240	-22490	-21470	-28840	-25240	-23080	-51340
11.949	-3.840	-23420	-22310	-26470	-23590	-20200	-21220	-26500	-21970	-19160	-44220
11.954	.189	-21910	-23140	-24020	-25580	-19510	-22750	-25400	-20860	-20320	-50980
11.952	4.250	-22760	-26330	-24730	-27040	-19200	-23710	-27360	-22430	-20700	-42540
11.942	8.320	-26120	-29170	-27950	-30630	-22150	-27000	-30690	-23320	-25200	-45960
	GRADIENT	.00081	-0.00497	.00215	-0.00377	.00124	-0.00308	-0.00394	-0.00557	-0.00190	-0.00210

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY18) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RUDDER =  
BDFLAP =  
ELVN-R =

.000 SPOBRK = .000  
-11.700 ELVN-L = .000  
.000 MACH = 1.400

PARAMETRIC DATA

RUN NO. 123/ 0 RV/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.050	-3.854	-32840	-33000	-33590	-34050	-31000	-32130	-34320	-33370	-34130	-37210
4.042	.192	-32650	-33260	-33550	-34280	-31020	-32250	-33590	-33420	-33950	-35420
4.051	4.285	-32380	-33180	-32930	-34040	-30610	-31830	-32590	-33210	-34120	-37530
	GRADIENT	.00057	-0.00022	.00073	.00001	.00048	.00037	.00213	.00020	.00001	-0.00040

RUN NO. 124/ 0 RV/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA 3.919  
BETA -3.874  
GRADIENT

RUDDER =  
BDFLAP =  
ELVN-R =

.000 SPOBRK = .000  
-11.700 ELVN-L = .000  
.000 MACH = 1.400

PARAMETRIC DATA

RUN NO. 125/ 0 RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.919	-3.877	-31740	-32600	-33170	-32740	-31680	-32340	-32440	-31530	-33390	-36970
3.922	.185	-30910	-32050	-32530	-32500	-30250	-31490	-31400	-30920	-32190	-35090
3.923	4.255	-31870	-32470	-33490	-33560	-30520	-32140	-31550	-31740	-33460	-37780
	GRADIENT	.00016	-0.00086	.00039	.00116	.00069	.00024	.00109	.00026	-0.00009	-0.00100

RUDDER =  
BDFLAP =  
ELVN-R =

.000 SPOBRK = .000  
-11.700 ELVN-L = .000  
.000 MACH = 1.400

PARAMETRIC DATA

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY18) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDGRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RUN NO. 126/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
7.792  
7.791  
7.919BETA  
-3.867  
.182  
4.252  
GRADIENT

CP200 -32750  
 CP201 -31870  
 CP204 -33740  
 CP205 -32560  
 CP1 -30990  
 CP2 -31590  
 CP3 -33520  
 CP4 -32160  
 CP5 -31920  
 CP6 -39460

CP3 -31680  
 CP4 -30590  
 CP5 -31470  
 CP6 -36660  
 CP3 -32250  
 CP4 -33270  
 CP5 -30170  
 CP6 -32690  
 CP3 -30039  
 CP4 -00072  
 CP5 -00101  
 CP6 -00160  
 CP3 -00088  
 CP4 -00052  
 CP5 -00099  
 CP6 -00054

RUN NO. 127/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
11.807  
11.815  
11.810BETA  
-3.848  
.187  
4.268  
GRADIENT

CP200 -34420  
 CP201 -32860  
 CP204 -35160  
 CP205 -34690  
 CP1 -30940  
 CP2 -32210  
 CP3 -34500  
 CP4 -32010  
 CP5 -32040  
 CP6 -38810

CP3 -32690  
 CP4 -34010  
 CP5 -33970  
 CP6 -36880  
 CP3 -34030  
 CP4 -34570  
 CP5 -31480  
 CP6 -33970  
 CP3 -00347  
 CP4 -00050  
 CP5 -00053  
 CP6 -00283  
 CP3 -00091  
 CP4 -00229  
 CP5 -00196  
 CP6 -00097

RUN NO. 128/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
15.906  
15.920  
15.910BETA  
-3.833  
.184  
4.299  
GRADIENT

CP200 -35880  
 CP201 -34450  
 CP204 -35490  
 CP205 -37590  
 CP1 -32440  
 CP2 -32200  
 CP3 -37050  
 CP4 -34450  
 CP5 -33730  
 CP6 -42770

CP3 -34430  
 CP4 -36940  
 CP5 -37460  
 CP6 -35990  
 CP3 -36940  
 CP4 -37460  
 CP5 -33240  
 CP6 -35620  
 CP3 -00135  
 CP4 -00304  
 CP5 -00154  
 CP6 -00231  
 CP3 -00099  
 CP4 -00070  
 CP5 -00231  
 CP6 -00070

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY19) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDGRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 131/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
-4.048  
-3.974  
-3.994BETA  
-3.848  
.192  
4.283  
GRADIENT

CP200 -35480  
 CP201 -36010  
 CP204 -36550  
 CP205 -36600  
 CP1 -33850  
 CP2 -35210  
 CP3 -36470  
 CP4 -34830  
 CP5 -36470  
 CP6 -42270

CP3 -36010  
 CP4 -34180  
 CP5 -35040  
 CP6 -39480  
 CP3 -35910  
 CP4 -34820  
 CP5 -36510  
 CP6 -42260  
 CP3 -00053  
 CP4 -00067  
 CP5 -00056  
 CP6 -00033  
 CP3 -00285  
 CP4 -00001  
 CP5 -00066  
 CP6 -00050

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(REBY19) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SFCBRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 129/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.051	-3.861	-34940	-35080	-35630	-35250	-32950	-34450	-35880	-33280	-35760	-43730
-0.007	.182	-33880	-33970	-34490	-34660	-32290	-33290	-33980	-32600	-33960	-40450
-0.013	4.263	-36120	-36380	-36410	-36840	-33230	-34660	-34780	-34380	-35670	-43270
GRADIENT	GRADIENT	-0.0146	-0.016	-0.0097	-0.0196	-0.0035	-0.0026	.00135	-0.0136	.00010	.00055

RUN NO. 130/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.859	-3.873	-34570	-34620	-35210	-35140	-32990	-34220	-35340	-33820	-33340	-43550
3.906	.178	-34270	-34510	-34680	-35050	-33670	-33710	-34360	-33070	-34170	-42050
3.928	4.253	-35270	-35580	-35320	-35820	-33250	-34250	-35350	-34780	-34110	-43120
GRADIENT	GRADIENT	-0.0086	-0.0118	-0.00014	-0.00084	-0.0032	-0.00004	.00072	-0.0118	-0.0095	.00053

RUN NO. 132/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.851	-3.877	-36020	-35550	-36520	-36050	-33970	-34800	-37250	-34540	-33180	-44010
7.971	.182	-35670	-35240	-35930	-36360	-32640	-34330	-35240	-34140	-34630	-43570
7.972	4.253	-36890	-38170	-37380	-38140	-34330	-37450	-37100	-36240	-34330	-43460
GRADIENT	GRADIENT	-0.0107	-0.0322	-0.0106	-0.00257	-0.00044	-0.00326	.00018	-0.0209	-0.0215	.00068

RUN NO. 133/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.905	-3.844	-37250	-35580	-38570	-35370	-34480	-35090	-37670	-34740	-34290	-44690
11.915	.187	-37450	-37550	-37420	-36580	-34100	-36150	-37310	-35790	-35960	-45310
11.907	4.269	-38730	-38070	-40040	-38300	-35040	-37740	-37290	-36550	-35570	-44250
GRADIENT	GRADIENT	-0.0183	-0.0294	-0.0182	-0.00360	-0.00069	-0.00327	.00047	-0.0223	-0.0157	.00055

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY20) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RUN NO. 134/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.047	-3.843	-38400	-38190	-39750	-39180	-36000	-38190	-39040	-35850	-37610	-47690
-3.971	.189	-37080	-37820	-39450	-39050	-35090	-36780	-37760	-35500	-36520	-45080
-3.938	4.285	-38300	-38820	-40290	-40170	-36120	-39060	-38750	-36540	-37540	-46740
	GRADIENT	.00011	-0.00078	-0.00067	-0.00122	-0.00015	-0.00108	.00035	-0.00085	.00008	.00115

RUN NO. 135/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.36	-3.867	-36680	-36520	-39030	-37660	-34360	-36640	-37020	-34290	-35570	-48450
-0.059	.183	-35910	-36360	-38230	-37520	-33870	-35860	-36460	-34150	-35200	-46130
-0.052	4.261	-36810	-37050	-38570	-38210	-34640	-36850	-37180	-35040	-35680	-47040
	GRADIENT	-0.016	-0.00065	.00056	-0.00068	-0.00035	-0.00026	-0.00020	-0.00092	-0.00014	.00173

RUN NO. 136/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.856	-3.869	-36920	-36820	-38480	-37770	-34810	-36640	-37140	-35210	-34430	-47280
3.924	.189	-36110	-36440	-38390	-37410	-34110	-35780	-36350	-34640	-34850	-47820
3.921	4.251	-36770	-37320	-38520	-38360	-34800	-36870	-37060	-35200	-34490	-45740
	GRADIENT	.00018	-0.00062	-0.00005	-0.00073	.00001	-0.00026	.00010	.00001	-0.00007	.00190

RUN NO. 137/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.863	-3.864	-37670	-37580	-38760	-38270	-35730	-37270	-39110	-35770	-34820	-46480
7.865	.180	-36890	-37010	-38320	-37890	-34870	-36380	-37070	-35300	-35040	-49830
7.863	4.247	-38450	-38500	-38880	-39350	-36160	-37660	-38140	-36570	-35330	-46570
	GRADIENT	-0.00096	-0.00114	-0.00015	-0.00133	-0.00053	-0.00048	.00119	-0.00099	-0.00063	-0.00010

RUN NO. 138/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.903	-3.846	-39330	-39800	-40180	-40090	-37380	-39000	-41430	-37930	-36800	-47650
11.911	.188	-39200	-39510	-40240	-39840	-36120	-39030	-38880	-37410	-36810	-51940
11.905	4.263	-39310	-39290	-40710	-39950	-36080	-38680	-38180	-36700	-36680	-46620
	GRADIENT	.00002	.00063	-0.00065	.00017	.00160	.00040	.00400	.00152	.00015	.00130

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(OA148) -140A/B/C/R ORBITER

(REFY21) ( : AUG 75 )

## REFERENCE DATA

SREF =	2690.0000	50.FT.	XMAP =	1075.6800	IN. X0
LREF =	474.8000	IN.	YMAP =	.0000	IN. Y0
BREF =	936.6800	IN.	ZMAP =	375.0000	IN. Z0
SCALE =	.0300				

### PARAMETRIC DATA

RUDDER	=	.000	SPOBRK	=	.000
BDFLAP	=	-11.700	ELVN-L	=	.000
ELVN-R	=	.000	MACH	=	.900

RUN NO.	139/ 0	RN/L =	3.57	CRADIENT INTERVAL =	-5.00/ 5.00
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ALPHA	BETA	CR200	CR201	CR204	CR205	CP1	CP2	CP3	CP4	CP5	CP6
-4.037	-3.849	-29050	-25260	-26990	-25520	-19270	-25620	-24980	-21930	-20250	-37640
-4.030	192	-29320	-25600	-27740	-26930	-20620	-25770	-25750	-22600	-20270	-37530
-4.042	4.289	-28660	-27030	-29100	-28360	-21810	-26470	-25320	-22950	-22240	-37010
GRADIENT		00270	00218	-00272	00349	-00312	-00105	-00041	-00126	-00245	-00078

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RUN NO. 140/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

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ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.024	-3.875	-.27330	-.25740	-.27650	-.26840	-.18550	-.25270	-.24150	-.21090	-.20510	-.32400
.031	.186	-.27600	-.24990	-.27010	-.25650	-.20870	-.24850	-.24350	-.20920	-.23220	-.36610
.021	4.265	-.23940	-.24690	-.27520	-.25580	-.19520	-.24540	-.24020	-.20470	-.33320	-.50112
GRADIENT		.00490	.00104	.00016	.00155	-.00119	.00090	.00016	.00076	.00134	-.00112

RUN NO. 141/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.922	-3.878	-26290	-23530	-24670	-24760	-19230	-24650	-22720	-19560	-19990	-29890
3.975	.189	-26150	-22800	-25050	-24200	-19970	-23140	-22990	-18780	-18440	-34340
3.972	4.260	-24340	-25150	-27010	-24990	-19590	-24560	-25130	-21890	-20170	-33270
GRADIENT		.00240	.00199	-.00288	-.00928	-.00094	.00011	-.00296	-.00286	-.00022	-.00415

RUN NO. 142/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.906	-3.870	-2.5650	-2.2320	-2.5420	-2.4300	-1.9470	-2.3270	-2.2140	-1.9510	-1.9230	-3.1620
8.017	.186	-2.6010	-2.2920	-2.4440	-2.3090	-1.9950	-2.2660	-2.3070	-1.9040	-1.8490	-3.1870
8.014	4.257	-2.2620	-2.2420	-2.5780	-2.3140	-2.0110	-2.3140	-2.4210	-2.0820	-1.9160	-3.090
	GRADIENT	.06371	-.00234	-.00168	-.00001	-.00079	.00016	-.00255	-.00272	-.00009	-.30198

RUN NO. 143/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
1	11.893	-3.861	-25900	-25030	-27240	-26290	-20560	-24990	-24710	-20850	-22710	-35750
2	11.936	.190	-26560	-25890	-28300	-26690	-21340	-24820	-24610	-22130	-22580	-39090
3	11.948	4.274	-23520	-26080	-28490	-27060	-21900	-25200	-25430	-22500	-21540	-36830
4		GRADIENT	.00416	-.00129	-.00154	-.00095	-.00152	-.00026	-.00089	-.00203	-.00102	-.00131

DATE 08 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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(RE8Y22) : 12 AUG 75 )

## REFERENCE DATA

SREF	=	2690.0000	50.FT.	XMRP	=	1076.6800	IN.	X0
LREF	=	74.8000	IN.	YMRP	=	.0000	IN.	Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	Z0
SCALE	=	.0300						

## PARAMETRIC DATA

RUDDER	=	.000	SPOBRK	=	.000
BOFLAP	=	-11.700	ELVN-L	=	.000
ELVN-R	=	.000	MACH	=	.600

[illegible]

RUN NO.	145/ 0	RV/L =	4.86	GRADIENT INTERVAL =	-5.00/ 5.00
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ALPHA	BETA	RUN NO.	146/ 0	RN/L =	4.87	GRADIENT INTERVAL =	-5.00/	5.00	CP3	CP4	CP5	CP6
3.933	-7.911	CP200	CP201	CP204	CP205	CP1	CP2	CP3				
3.936	-3.866	-25130	-24140	-28940	-26130	-18380	-23340	-27970	-21220	-16670	-36230	
3.935	.172	-28160	-24040	-26010	-24850	-18920	-24580	-26440	-21020	-17780	-33800	
4.026	4.240	-25680	-23360	-25150	-23690	-18960	-23020	-24320	-19130	-17480	-33550	
5.030	8.292	-26050	-23700	-25930	-24670	-18610	-23450	-24250	-20350	-19240	-34120	
	GRADIENT	-28460	-25030	-26710	-25050	-18790	-24630	-25200	-20340	-20020	-36230	
		.00260	.00042	.00010	.00022	.00038	.00139	.00270	.00982	.00180	.00040	

RUN NO. 147/ 0      RN/L = 4.87      GRADIENT INTERVAL = -5.00/ 5.00

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY22) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

## PARAMETRIC DATA

RUN NO. 148/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.963	-7.860	-28130	-23870	-27090	-24930	-17450	-23710	-28290	-22740	-18820	-35330
11.985	-3.840	-27290	-23150	-25560	-24330	-17010	-22670	-25270	-20760	-15140	-29250
12.000	.181	-25100	-22590	-24460	-22850	-18150	-22730	-23510	-18450	-17080	-34370
12.027	4.252	-25240	-23090	-26360	-24250	-18640	-22350	-25040	-20250	-17720	-30340
12.070	9.324	-29010	-25500	-28490	-26760	-17160	-26100	-26970	-23710	-22240	-37500
	GRADIENT	.00253	.00307	.00102	.00009	-.00201	.00040	.00028	.00062	-.00319	-.00132

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPOBRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 149/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.999	-3.856	-31850	-34050	-32440	-35470	-30540	-32640	-35350	-33630	-34390	-37310
-3.926	.190	-31340	-33640	-31800	-34690	-30370	-32550	-33650	-33770	-33800	-36270
-3.986	4.279	-31900	-33680	-32090	-34750	-30530	-32700	-33030	-33790	-34580	-37690
	GRADIENT	-.00005	.00047	.00043	.00088	.00001	-.00007	.00285	-.00020	-.00024	-.00072

ALPHA .006  
 BETA -3.877  
 .011  
 .183  
 4.256  
 GRADIENT

RUN NO. 150/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.006	-3.877	-32970	-32130	-33320	-33680	-30820	-31060	-33120	-32350	-33690	-37060
.023	.183	-31890	-32780	-32640	-33810	-30040	-31780	-32070	-31570	-32980	-35730
	4.256	.00133	-.00143	.00063	-.00057	.00090	-.00124	.00138	-.00047	-.00030	-.00131
	GRADIENT										

RUN NO. 151/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.926	-3.879	-32640	-31970	-33260	-33230	-30580	-31100	-32220	-31600	-33080	-38700
3.958	.183	-31460	-31930	-31930	-32170	-29000	-31340	-31410	-30720	-31460	-36520
3.971	4.247	-31770	-32820	-32270	-33080	-29750	-32090	-31470	-.00092	-.00092	-.00011
	GRADIENT	.00107	-.00105	.00122	.00018	.00102	-.00122	.00092	.00036	.00092	.00011

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY23) ( 12 AUG 75 )



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY23) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA  
 7.933  
 7.908  
 7.872

BETA  
 -3.869  
 .178  
 4.245  
 GRADIENT

RUN NO. 152/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CP200 CP201 CP204 CP205 CP1 CP2 CP3 CP4 CP5 CP6  
 -33540 -33180 -34350 -34280 -31790 -32180 -34520 -33160 -33300 -40470  
 -32240 -32510 -32890 -33150 -32070 -32040 -32040 -30880 -32160 -37480  
 -32480 -33920 -33150 -34080 -32430 -32550 -32430 -31480 -32120 -39490  
 .00143 -0.00079 .00148 .00024 .00167 -0.00046 .00257 .00207 .03145 .00120

RUDDER =  
 BOFLAP =  
 ELVN-R =

.000 SPOBRK =  
 .000 ELVN-L =  
 .000 MACH =  
 1.400

## PARAMETRIC DATA

ALPHA  
 11.931  
 11.869  
 11.855

BETA  
 -3.857  
 .183  
 4.258  
 GRADIENT

RUN NO. 153/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CP200 CP201 CP204 CP205 CP1 CP2 CP3 CP4 CP5 CP6  
 -34460 -33910 -35290 -32720 -32810 -33050 -35600 -33670 -33430 -40440  
 -33920 -34160 -34560 -35340 -31480 -32790 -33990 -32890 -33580 -39550  
 -33940 -33950 -33630 -36340 -32190 -35030 -34510 -33770 -33690 -40020  
 .00064 -0.00241 .00205 -0.00446 .00076 -0.00244 .00134 .00013 .00032 .00052

RUN NO. 154/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CP200 CP201 CP204 CP205 CP1 CP2 CP3 CP4 CP5 CP6  
 -36700 -33420 -36530 -34160 -33740 -33070 -37580 -35190 -35720 -44050  
 -35300 -37600 -34630 -39220 -33710 -35720 -37530 -35120 -35290 -42400  
 -35830 -36000 -37000 -38600 -33500 -36910 -36250 -35410 -35100 -43100  
 -0.00017 -0.00562 -0.00060 -0.00544 .00030 -0.00472 .00164 .00027 .00046 .00116

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA  
 -3.982  
 -3.977  
 -3.980

BETA  
 -3.844  
 .190  
 4.277  
 GRADIENT

RUN NO. 155/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

CP200 CP201 CP204 CP205 CP1 CP2 CP3 CP4 CP5 CP6  
 -34190 -36350 -35070 -38210 -32760 -35300 -37060 -35610 -35730 -41930  
 -34130 -35870 -34530 -37130 -32190 -34650 -35700 -34890 -35630 -39590  
 -34600 -36100 -35840 -37590 -32510 -34350 -34870 -35560 -35730 -42290  
 -0.00051 -0.00031 .00031 .00076 .00031 .00117 .00270 .00006 .00001 .00046

RUDDER =  
 BOFLAP =  
 ELVN-R =

.000 SPOBRK =  
 .000 ELVN-L =  
 .000 MACH =  
 1.250

## PARAMETRIC DATA

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY24) ( 12 AUG 75 )

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY24) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUDDER = .000  
 BOFLAP = .000  
 ELVN-R = .000  
 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 156/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.038	-3.875	-34770	-34430	-35530	-35860	-32610	-33850	-35360	-34000	-35450	-42800
.042	.180	-33920	-34340	-34770	-35700	-31290	-33810	-34310	-33340	-34380	-40360
.044	4.251	-34400	-36130	-35390	-37100	-32240	-34500	-34480	-34500	-35570	-43100
	GRADIENT	.00045	-0.00209	.00017	-0.00153	.00045	-0.00080	.00108	-0.00062	-0.00027	-0.00037

RUN NO. 157/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.904	-3.872	-35250	-34950	-35790	-35770	-32710	-34540	-35780	-37530	-34180	-43380
3.905	.182	-34710	-35020	-35730	-36040	-32000	-34140	-34640	-33450	-34850	-42310
3.915	4.245	-35150	-35600	-36170	-36880	-31790	-33940	-34370	-33940	-34080	-42460
	GRADIENT	.00012	-0.00079	-0.00047	-0.00137	.00113	.00074	.00174	-0.00014	.00010	.00113

RUN NO. 158/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.877	-3.867	-36850	-36070	-37420	-37530	-34790	-35100	-37580	-35790	-34930	-44610
7.882	.178	-35520	-35710	-36110	-36730	-32940	-34490	-35160	-34250	-35110	-43920
7.892	4.744	-35860	-37400	-35600	-37970	-33880	-36580	-36120	-35480	-34880	-43970
	GRADIENT	.00122	-0.00164	.00101	-0.00079	.00112	-0.00183	.00180	.00038	.00006	.00079

RUN NO. 159/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.916	-3.850	-37630	-37290	-38260	-38060	-35970	-36510	-38540	-37040	-35990	-45950
11.928	.186	-36620	-37780	-37570	-39250	-34270	-36200	-37280	-36060	-35510	-45920
11.922	4.255	-38420	-37870	-38710	-37890	-35230	-37160	-35930	-35730	-36020	-45500
	GRADIENT	-0.00091	-0.00071	-0.00056	-0.00361	.00079	-0.00080	.00322	.00161	-0.00003	.00056

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(REBY25) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RUN NO. 160/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.988	-3.842	-38120	-39470	-39110	-39970	-36230	-38160	-38900	-35440	-39760	-47370
-3.982	.191	-37840	-37770	-38440	-39100	-35530	-36950	-38630	-37220	-38030	-46560
-3.987	4.273	-39320	-38560	-39790	-39580	-36700	-36650	-38700	-36080	-39340	-47540
	GRADIENT	-00148	.00109	-00084	.00048	-00058	.00186	.00025	-00202	-00072	-00021

RUN NO. 161/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.056	-3.867	-35940	-37300	-37230	-37630	-34000	-35820	-36510	-34530	-35510	-47620
.058	.181	-36630	-36540	-37780	-37780	-33970	-36050	-36740	-35750	-36810	-47150
.056	4.249	-37570	-36520	-35400	-39300	-34940	-34320	-37330	-36540	-37280	-46080
	GRADIENT	-00201	.00084	-00144	-00083	-00116	.00237	-00101	-00260	-00095	-00057

RUN NO. 162/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.948	-3.871	-37750	-37270	-38800	-38390	-35000	-37100	-38270	-35950	-35260	-48210
3.948	.177	-37050	-36510	-38150	-38120	-33370	-35760	-36540	-35230	-36230	-48280
3.950	4.239	-37820	-37440	-38340	-38870	-35370	-35780	-37620	-37120	-36760	-46960
	GRADIENT	-00009	-00021	.00057	-00059	-00046	.00163	.00080	-00144	-00165	-00154

RUN NO. 163/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.932	-3.857	-39040	-38040	-39770	-39090	-36310	-37580	-39620	-37410	-35910	-46810
7.938	.185	-37900	-37420	-38750	-38400	-34770	-36820	-36930	-36340	-36340	-50570
7.937	4.238	-38500	-39400	-39540	-40680	-35780	-38230	-38230	-37640	-35950	-47760
	GRADIENT	.00057	-00168	.00016	-00221	.00065	-00087	.0179	-00023	-00128	-00110

RUN NO. 164/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.970	-3.845	-39380	-39990	-39490	-39870	-35170	-38480	-40310	-37270	-35100	-47270
11.981	.187	-39400	-40040	-40260	-40230	-35920	-39350	-38980	-36560	-36870	-52290
11.975	4.250	-40600	-40790	-41240	-41100	-37230	-39500	-38400	-37540	-37680	-48120
	GRADIENT	-00151	-00099	-00216	-00152	-00131	-00182	.00236	-00034	-00195	-00104

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY26) ( 12 AL'S 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRFP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RUN NO. 165/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.996	-3.845	-23300	-23640	-23970	-24140	-22250	-22560	-24550	-21620	-21670	-38380
-3.977	.190	-23410	-23790	-24220	-26150	-22370	-22960	-25640	-22700	-22850	-39160
-3.995	4.276	-23360	-26160	-24930	-26920	-21210	-23500	-24640	-21550	-22950	-38350
	GRADIENT	-0.0007	-0.0031	-0.0018	-0.0033	-0.00128	-0.0016	-0.0009	-0.0007	-0.0047	-0.0004

RUN NO. 166/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.061	-3.869	-23630	-23640	-25500	-25100	-22080	-22060	-24070	-20940	-21250	-35320
.057	.174	-22280	-22020	-22240	-23710	-20750	-20940	-22870	-20180	-20160	-35440
.063	4.252	-22340	-24170	-23790	-24740	-20720	-22640	-24360	-20860	-20100	-33660
	GRADIENT	-0.0166	-0.0066	-0.00210	-0.0044	-0.00157	-0.0037	-0.0035	-0.0010	-0.0141	-0.0180

RUN NO. 167/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.954	-3.877	-22660	-22370	-22870	-22470	-20740	-21620	-22940	-20190	-20470	-32280
3.955	.186	-20690	-21460	-21370	-21560	-19820	-20010	-21780	-16560	-19720	-35510
3.963	4.243	-21170	-22360	-21890	-23600	-20360	-21360	-23510	-20750	-19360	-31910
	GRADIENT	-0.0184	-0.0001	-0.00121	-0.00139	-0.0047	-0.0032	-0.0070	-0.00074	-0.0137	-0.0045

RUN NO. 168/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.926	-3.870	-21870	-21410	-21460	-21270	-19300	-21160	-21810	-11560	-19510	-33160
7.938	.179	-20880	-21970	-20990	-22350	-19700	-20340	-22530	-15270	-11330	-35430
7.933	4.243	-22370	-22600	-22290	-22840	-20220	-22130	-23110	-20250	-19190	-33220
	GRADIENT	-0.0062	-0.0047	-0.00102	-0.00193	-0.00113	-0.00120	-0.00160	-0.0002	-0.0035	-0.0007

RUN NO. 169/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.953	-3.854	-23330	-22470	-24060	-22970	-21400	-22790	-24020	-19880	-20880	-37430
11.965	.189	-23460	-24320	-24700	-24980	-21090	-22760	-24320	-20870	-22710	-40230
11.949	4.257	-24340	-24290	-24360	-25570	-20470	-23340	-25690	-22740	-22120	-37500
	GRADIENT	-0.0125	-0.0024	-0.00037	-0.00320	-0.00115	-0.00068	-0.00205	-0.00353	-0.0153	-0.0057

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE6727) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .500 MACH = .500

RUN NO. 170/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.986	-7.853	-22590	-22340	-25660	-24190	-19920	-22120	-24730	-15910	-23940	-35950
-3.969	-3.841	-21750	-21700	-24180	-22940	-19250	-21070	-24750	-19250	-23710	-37730
-3.949	.187	-21630	-22380	-23350	-24070	-19980	-20810	-25560	-25330	-19720	-36340
-3.957	4.268	-21360	-23400	-22330	-26820	-19860	-22360	-25700	-21600	-19310	-37510
-3.972	8.340	-21600	-25020	-23000	-26890	-19900	-23610	-26710	-23590	-22370	-39150
	GRADIENT	.00048	-0.0210	.00150	-0.00479	.00024	-0.0122	-0.0073	-0.0314	.00051	.00025

RUN NO. 171/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.056	-7.886	-22420	-21590	-24890	-24080	-20110	-21200	-24950	-15560	-21370	-38580
.065	-3.850	-21390	-21250	-24630	-22320	-19510	-21100	-24750	-19130	-21290	-37280
.070	.184	-20610	-21680	-22110	-23700	-19040	-21270	-24440	-19220	-19200	-36500
.066	4.247	-20900	-24410	-22160	-25240	-19090	-22310	-24340	-20230	-19310	-39150
.050	8.305	-21510	-25540	-22530	-27150	-19220	-24010	-25690	-23500	-22200	-39200
	GRADIENT	.00060	-0.00390	.00302	-0.00360	.00052	-0.0137	.00051	-0.0222	-0.0040	-0.00108

RUN NO. 172/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5
3.957	-7.887	-22500	-21690	-26010	-23240	-20500	-20970	-25070	-19550	-20690
3.961	-3.653	-20910	-20840	-23720	-22270	-19390	-20830	-24130	-18460	-19580
3.981	.188	-19330	-20900	-20560	-22420	-18530	-19810	-23570	-18720	-1770
3.978	4.237	-20530	-22490	-21680	-24580	-18340	-21750	-23700	-20040	-19210
3.980	8.232	-20950	-24740	-23170	-25400	-19770	-23500	-24350	-21670	-2150
	GRADIENT	.00035	-0.00204	.00252	-0.00285	.00093	-0.0114	.00053	-0.03195	-0.0078

RUN NO. 173/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.935	-7.885	-22970	-21780	-25360	-23380	-20410	-21290	-26050	-20860	-21550	-35450
7.944	-3.857	-20130	-20050	-21420	-21570	-19590	-22540	-22540	-17500	-19770	-37960
8.045	.192	-19370	-20320	-20180	-21870	-17560	-19540	-24540	-18340	-17150	-36220
8.043	4.239	-20680	-21370	-21320	-22750	-17490	-21160	-23080	-20000	-21710	-37080
8.041	8.297	-21040	-23590	-23580	-24560	-19070	-22460	-24960	-22530	-19300	-34640
	GRADIENT	-0.00058	-0.00235	.00012	-0.00145	.00125	-0.0157	.00057	-0.0371	-0.00354	.00039

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY27) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPEEDK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .500

RUN NO. 174/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.909	-7.850	-22490	-20160	-26840	-23560	-19560	-20010	-25010	-21280	-19260	-35560
11.933	-3.836	-21080	-20820	-24040	-21820	-17960	-19940	-23960	-17490	-16860	-33960
11.930	.181	-20950	-21220	-21650	-22220	-17960	-20560	-23960	-17960	-1760	-39210
11.930	4.251	-20420	-23880	-22810	-24520	-17510	-20770	-23960	-20000	-17210	-33680
11.920	8.317	-23230	-24270	-24960	-26140	-18060	-22300	-25960	-22490	-19790	-38100
	GRADIENT	.00081	.00259	.00151	-.00334	.00056	-.00115	-.00019	-.00339	-.00140	.00115

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY28) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPEEDK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .500

RUN NO. 175/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.978	-3.655	-33230	-35020	-32710	-35320	-32010	-3350	-35000	-33210	-31160	-35010
-3.971	.185	-33230	-35590	-32070	-38010	-31350	1710	-35000	-34160	-31680	-35010
-3.973	4.270	-33240	-36270	-33210	-38350	-31540	1450	-34510	-35900	-32940	-35740
	GRADIENT	-.00002	-.00154	-.00062	-.00250	.00008	1970	.00177	-.00115	-.00102	.00065

RUN NO. 176/ 0 RN/L = 2.92 GRADIENT INTERVAL 5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.953	-3.876	-32680	35540	-32890	-37220	-31340	1450	-34140	-35940	-31170	-35010
-3.945	.182	-33330	-35590	-33730	-35370	-31550	1450	-33600	-35880	-31680	-35010
-3.943	4.247	-34050	-35840	-34900	-35920	-31980	1450	-33900	-35880	-31680	-35010
	GRADIENT	-.00144	-.00331	-.00249	.00049	-.00079	-.00065	.00372	-.00010	-.00020	-.00318

RUN NO. 177/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.852	-3.879	-33890	-35830	-34310	-36560	-31700	-35170	-33320	-35010	-31680	-35010
3.892	.173	-34300	-34740	-35100	-35000	-31580	-34270	-33700	-35880	-31680	-35010
3.695	4.241	-34200	-35570	-35020	-36720	-32610	-34530	-35000	-35880	-31680	-35010
	GRADIENT	-.00039	.00039	-.00087	.00026	-.00112	.00030	-.00030	-.00014	-.00039	-.00046

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(RE9Y28) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 178/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.3+0	-3.870	-34630	-35490	-34840	-38400	-32500	-35830	-36160	-34480	-35070	-45720
7.945	.176	-34070	-35870	-34260	-36630	-32030	-35410	-35080	-33880	-35030	-43490
7.949	4.238	-35740	-34230	-36550	-36030	-33220	-34070	-34990	-34310	-35480	-44820
	GRADIENT	-00137	.00279	-00021	.00046	-00089	.00217	.00144	.00021	-00174	.00111

RUN NO. 179/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.353	-3.856	-35080	-37140	-34920	-39190	-33520	-36730	-37220	-35760	-36000	-46230
11.373	.179	-35250	-35380	-37030	-37150	-33350	-35220	-35930	-35350	-36190	-44420
11.870	4.256	-39550	-34200	-38480	-35020	-34690	-34200	-36230	-35860	-37060	-45060
	GRADIENT	-00428	.00362	-00439	.00514	-00169	.00312	.00118	-00013	-00131	.00144

RUN NO. 180/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
15.854	-3.831	-37320	-37360	-36650	-38780	-34660	-36500	-39160	-37770	-37750	-48070
15.868	.178	-38710	-34930	-38950	-36020	-35250	-35720	-37060	-36840	-37130	-45230
15.859	4.283	-38350	-36900	-39910	-38310	-34750	-35320	-37540	-36360	-39170	-47390
	GRADIENT	-00127	.00067	-00277	-00006	-00011	.00145	.00198	.00175	-00053	.00081

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 181/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.986	-3.845	-35440	-33370	-36530	-41590	-34920	-38630	-39010	-37590	-39770	-53010
-3.957	.185	-36030	-40320	-36070	-42140	-34510	-36820	-37840	-36470	-39060	-53180
-3.974	4.269	-37290	-41650	-36910	-41420	-37340	-37080	-37080	-37590	-40570	-53100
	GRADIENT	-00105	-00306	.00008	.00021	-00119	.00158	.00238	.00001	-00222	-00011

AMES 11-07310A148) -140A/B/C/R ORBITER

(RE8Y29) ( 12 AUG 75 )

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.250

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY29) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPD BRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.250

RUN NO. 182/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.035	-3.671	-36740	-39150	-37570	-40470	-34230	-38530	-38780	-35930	-37950	-53920
-0.027	.182	-37180	-35000	-37490	-40440	-34290	-38250	-37040	-36080	-35460	-52980
-0.032	4.245	-37650	-39970	-39330	-40910	-35570	-38880	-37200	-37320	-41350	-53190
	GRADIENT	-0.0112	-0.0089	-0.0094	-0.0054	-0.0165	-0.0036	.00195	-0.0184	-0.0049	.00090

RUN NO. 183/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.922	-3.869	-38080	-39530	-39880	-40960	-34710	-38690	-38930	-36720	-37850	-54550
3.922	.180	-38320	-39530	-39240	-40310	-35640	-39150	-38310	-36650	-35970	-51260
3.925	4.237	-37580	-39520	-37930	-41030	-36170	-38820	-37920	-36910	-40660	-52590
	GRADIENT	.00362	.00038	.00117	-0.0009	-0.0180	.00009	.00125	-0.0023	-0.00347	.00242

RUN NO. 184/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.990	-3.870	-35550	-41750	-40220	-41920	-37070	-41020	-41160	-39250	-39110	-55300
7.994	.176	-36550	-40640	-39390	-41910	-36630	-40080	-40060	-39380	-39560	-51640
7.996	4.240	-39300	-38850	-39990	-41190	-37880	-39530	-39580	-38900	-41070	-53010
	GRADIENT	.00031	.00352	.00028	.00090	-0.0100	.00184	.00195	.00043	-0.00242	.00282

RUN NO. 185/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.923	-3.851	-40330	-41980	-40420	-44820	-38350	-42340	-42910	-41090	-43760	-55060
11.934	.177	-40050	-40990	-40230	-43870	-37830	-40840	-41670	-40940	-41530	-52300
11.927	4.253	-40810	-39300	-41880	-41520	-38030	-39090	-40440	-39560	-41050	-55210
	GRADIENT	-0.00059	.00331	-0.00181	.00408	.00039	.00401	.00275	.00140	-0.00035	.00103



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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(REBY30) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.100

RUN NO. 186/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-3.994	-3.862	-42980	-43930	-45010	-45270
-3.985	.190	-41800	-44000	-42720	-44230
-3.992	4.268	-42480	-44540	-42550	-45340
	GRADIENT	.00061	-0.00075	.00303	-0.00009
					-0.00161
					-0.00031
					-0.00037
					.00146
					-0.00173
					-0.00620
					-0.00770
					-0.00429

RUN NO. 187/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-0.020	-3.866	-42770	-43260	-43810	-45370
-0.014	.187	-41520	-43270	-42770	-44740
-0.017	4.244	-41270	-43750	-41980	-44460
	GRADIENT	.00185	-0.00060	.00226	-0.00112
					-0.00088
					-0.00037
					.00094
					-0.00081
					-0.00365
					-0.00429

RUN NO. 188/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
3.958	-3.869	-42950	-43360	-42880	-45600
3.959	.177	-40920	-42830	-41930	-44760
3.960	4.234	-41390	-42670	-41600	-44840
	GRADIENT	.00194	-0.00085	.00158	-0.00094
					-0.00079
					-0.00123
					.00057
					-0.00111
					-0.00402
					-0.00187

RUN NO. 189/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
8.035	-3.862	-45390	-46380	-45750	-48180
8.041	.181	-43410	-44470	-43550	-46670
8.040	4.238	-44040	-42530	-44630	-45250
	GRADIENT	.00165	-0.00475	.00139	-0.00362
					-0.00024
					.00212
					.00390
					-0.00058
					-0.00110

RUN NO. 190/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
11.975	-3.843	-45930	-46210	-46310	-45770
11.985	.181	-43290	-44040	-45080	-44730
11.977	4.250	-46950	-43660	-47030	-44990
	GRADIENT	-0.00127	-0.00290	-0.00090	-0.00096
					-0.00097
					.00134
					.00524
					-0.00011
					-0.00358
					-0.00283

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY31) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDERK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .900

RUN NO. 191/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.977	-3.852	-28370	-31590	-28840	-30760	-27880	-29560	-31870	-29630	-31500	-52270
-3.975	.187	-30310	-32620	-30400	-33540	-29500	-32170	-32260	-30470	-31740	-53670
-3.986	4.269	-32130	-33360	-31280	-33270	-29530	-32570	-32120	-31010	-32430	-57300
	GRADIENT	-00463	-00218	-00313	-00308	-00203	-00370	-00031	-00170	-00115	-00620

RUN NO. 192/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.002	-3.870	-28930	-32870	-29120	-32870	-27400	-31000	-32020	-29570	-33090	-52460
.000	.184	-30150	-32060	-30830	-33030	-27750	-31150	-31190	-28980	-31050	-52510
-0.010	4.247	-31760	-32470	-31760	-33420	-28720	-31860	-32020	-30980	-33200	-52750
	GRADIENT	-00342	-00049	-00325	-00068	-00163	-00106	-00000	-00174	-00235	-00036

RUN NO. 193/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.984	-3.872	-28690	-30660	-31230	-33340	-26590	-30620	-30200	-25410	-28990	-48390
3.993	.184	-29210	-31480	-31060	-31910	-27020	-30890	-31010	-25860	-29400	-52490
3.979	4.243	-31030	-31080	-31080	-31650	-29020	-31220	-31640	-30650	-31430	-44280
	GRADIENT	-00165	-00052	-00018	-00208	-00299	-00074	-00177	-00646	-00301	-00507

RUN NO. 194/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
8.057	-3.860	-29530	-30550	-30780	-32470	-25900	-29470	-28780	-25090	-26810	-50870
8.064	.187	-31570	-30240	-31710	-31710	-27340	-29840	-29360	-25020	-28870	-51660
8.059	4.245	-32410	-31770	-30660	-31470	-30330	-32330	-31100	-28180	-29850	-46700
	GRADIENT	-00355	-00151	-00012	-00123	-00547	-00353	-00286	-00381	-00128	-00515

RUN NO. 195/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.980	-3.854	-29260	-28900	-29920	-30350	-27270	-28600	-30280	-26470	-30060	-54280
11.990	.184	-29150	-29030	-30000	-30000	-26740	-27400	-28700	-26340	-30050	-54870
11.975	4.259	-30200	-29370	-31360	-32040	-28430	-28220	-28570	-28120	-32090	-51820
	GRADIENT	-00116	-00058	-00178	-00209	-00143	-00046	-00210	-00204	-00251	-00304

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY32) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .600

RUN NO. 196/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.052	-7.850	-26130	-23300	-27550	-24860	-23630	-22110	-31460	-24450	-28150	-55170
-4.036	-3.835	-26340	-23420	-27030	-26580	-24100	-22300	-30260	-25900	-27890	-54310
-4.020	.192	-24430	-26750	-24690	-31830	-24220	-25910	-29540	-25420	-28350	-57390
-4.028	4.273	-23810	-27040	-24730	-30660	-23960	-26750	-27550	-24870	-28860	-59650
-4.045	8.346	-25360	-28800	-25590	-32060	-24980	-27200	-27700	-26830	-28890	-59780
	GRADIENT	.00312	-.00446	.00283	-.00501	.00017	-.00548	.00335	.00127	-.00120	-.00658

RUN NO. 197/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.34	-7.883	-25610	-22740	-26510	-26060	-23080	-22330	-31000	-25740	-27330	-57100
-0.3	-3.857	-25230	-24540	-26340	-27020	-23330	-24760	-30130	-25320	-27640	-55040
-0.45	.186	-25010	-27990	-25700	-31070	-23980	-27850	-28160	-23630	-27520	-56710
-0.41	4.251	-26150	-28930	-27380	-30680	-25090	-28910	-28270	-24080	-29460	-57270
-0.35	8.312	-26740	-29600	-26970	-32670	-25810	-28950	-29520	-26140	-28200	-57900
	GRADIENT	-.00114	-.00541	-.00129	-.00451	-.00217	-.00512	.00229	.00153	-.00101	-.00275

RUN NO. 198/ 0 RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.014	-7.879	-23690	-25650	-24160	-28650	-23250	-25430	-30520	-26410	-27000	-56760
4.016	-3.855	-24780	-26910	-24750	-30130	-23420	-27270	-27760	-23210	-26870	-53160
4.015	.196	-26040	-27890	-28170	-30350	-23870	-27510	-27300	-21450	-27740	-53300
4.015	4.243	-27430	-29960	-28900	-31850	-25810	-29090	-28620	-24490	-27430	-51280
4.018	8.295	-27010	-29970	-27600	-31550	-26260	-29780	-29590	-26500	-29180	-53930
	GRADIENT	-.00327	-.00377	-.00513	-.00212	-.00255	-.00225	-.00105	-.00158	-.00059	-.00232

RUN NO. 199/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
8.080	-7.877	-24220	-26700	-25070	-30050	-23380	-27010	-31030	-26750	-26120	-48500
8.089	-3.848	-25110	-25890	-27090	-27710	-22870	-25290	-26600	-19610	-26010	-51890
8.087	.188	-26270	-27170	-27990	-29650	-23250	-26410	-26180	-21370	-26270	-52500
8.085	4.243	-27180	-29630	-30010	-31780	-25650	-28750	-29360	-22910	-27500	-51040
8.082	8.301	-28220	-30840	-28540	-33370	-26130	-30630	-29250	-27320	-30100	-42380
	GRADIENT	-.00256	-.00462	-.00361	-.00503	-.00344	-.00428	-.00341	-.00408	-.00184	-.00105

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

(REBY32) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .600

RUN NO. 200/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
12.017	-7.830	-24280	-26990	-26900	-29590	-22380	-27410	-31890	-27790	-24250	-57080
12.037	-3.825	-25920	-26510	-25730	-28540	-22100	-25540	-27720	-20370	-26220	-52080
12.038	.185	-24620	-25120	-25330	-27740	-23100	-25040	-26170	-20690	-26050	-52100
12.033	4.255	-25650	-27280	-27590	-31350	-24280	-27450	-26040	-21730	-26850	-49970
12.024	8.318	-24470	-26510	-26760	-33120	-24330	-29210	-26630	-26510	-30870	-51770
	GRADIENT	.00033	-.00055	-.00231	-.00349	-.00270	-.00237	.00207	-.00169	-.00030	.00262

AMES 11-07310A148) -140A/B/C/R ORBITER

(REBY33) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

RUN NO. 201/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.110	-3.848	-32360	-34590	-32240	-35440	-30860	-34190	-36480	-34550	-36220	-43030
-4.105	.195	-31680	-34520	-31630	-35820	-30720	-33720	-35210	-34310	-35520	-42180
-4.114	4.277	-32970	-36380	-32380	-37020	-31980	-35050	-35330	-35140	-35110	-43270
	GRADIENT	-.00075	-.00222	-.00017	-.00195	-.00138	-.00106	.00141	-.00073	.00013	-.00030

RUN NO. 202/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.049	-3.866	-33220	-32960	-34450	-33930	-31630	-32640	-35180	-34070	-35840	-42220
-0.045	.181	-32560	-32490	-33340	-33550	-30930	-32130	-33200	-33320	-34310	-41070
-0.050	4.256	-33690	-32650	-34020	-33760	-31500	-32040	-33390	-33630	-34430	-42460
	GRADIENT	-.00053	.00038	.00053	.00021	.00016	.00098	.00220	.00054	.00173	-.00030

RUN NO. 203/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.895	-3.869	-34430	-33700	-35330	-34240	-32580	-33380	-35010	-33500	-35950	-42350
3.895	.190	-33740	-32130	-34470	-32650	-30960	-31950	-33060	-31930	-33040	-41970
3.896	4.246	-33910	-32240	-35050	-33320	-31320	-31980	-32470	-32730	-33300	-44590
	GRADIENT	.00064	.00180	.00035	.00118	.00155	.00173	.00313	.00095	.00327	-.00276

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 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C/R ORBITER

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 204/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA BETA  
 7.947 -3.855  
 7.946 .185  
 7.944 4.238  
 GRADIENT .00023  
 RUDDER = 10.000 SPDRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

RUN NO. 205/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA BETA  
 11.859 -3.851  
 11.865 .189  
 11.860 4.253  
 GRADIENT .00113  
 CP1 CP2 CP3 CP4 CP5 CP6  
 -36320 -35710 -36580 -35050 -36730 -43960  
 -34620 -34710 -37520 -32960 -35710 -42770  
 -34650 -35120 -33380 -33900 -33900 -45590  
 -34810 -35000 -33240 -33280 -33280 -45590  
 -00023 -00036 -00089 -00265 -00329 -00201

RUN NO. 206/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA BETA  
 15.849 -3.830  
 15.859 .186  
 15.851 4.283  
 GRADIENT .00062  
 CP1 CP2 CP3 CP4 CP5 CP6  
 -38670 -37900 -37660 -36790 -37990 -45780  
 -38670 -38150 -37660 -36790 -37990 -45780  
 -39810 -41000 -38270 -36750 -37600 -45660  
 -39570 -36810 -37240 -35100 -36960 -47890  
 -00110 -00082 -00048 -00035 -00127 -00261

AMES 11-073(0A148) -140A/B/C/R ORBITER

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 207/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA BETA  
 -4.064 -3.845  
 -4.041 .192  
 -4.051 4.275  
 GRADIENT .00024  
 RUDDER = 10.000 SPDRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.250

RUN NO. 208/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA BETA  
 -4.064 -3.845  
 -4.041 .192  
 -4.051 4.275  
 GRADIENT .00024  
 CP1 CP2 CP3 CP4 CP5 CP6  
 -38080 -37880 -37880 -39140 -40400 -50230  
 -38080 -37880 -37880 -39140 -40400 -50230  
 -37230 -37340 -39120 -37150 -38520 -50460  
 -35920 -37740 -37680 -37420 -38130 -51530  
 -35920 -37740 -37680 -37420 -38130 -51530  
 -00155 -00102 -00013 -00088 -00279 -00160

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148 - 140A/B/C/R ORBITER

(REBY34) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ  
 LREF = 474.8000 IN. YMRP = .0000 IN. YQ  
 BRFE = 936.6800 IN. ZMRP = 375.0000 IN. ZQ  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BDFLAP = .6.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.250

RUN NO. 208/ 0		RN/L = 3.01		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-.032	-3.867	-.37880	-.35530	-.36850	-.35340
-.029	.184	-.36930	-.35940	-.37730	-.37120
-.035	4.251	-.38630	-.35280	-.36290	-.35060
GRADIENT		-.03093	.00154	.00134	.00034
RUN NO. 209/ 0		RN/L = 3.01		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
3.926	-3.871	-.38730	-.37830	-.39160	-.38540
3.924	.180	-.38660	-.36460	-.39460	-.38950
3.934	4.244	-.38990	-.35830	-.40390	-.36800
GRADIENT		-.00031	.00246	-.00152	.00214
RUN NO. 210/ 0		RN/L = 3.01		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
7.988	-3.856	-.38730	-.40410	-.38590	-.42110
7.987	.185	-.38490	-.38940	-.39180	-.41310
7.988	4.237	-.40700	-.37680	-.41760	-.39500
GRADIENT		-.00243	.00337	-.00391	.00322
RUN NO. 211/ 0		RN/L = 3.01		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
11.921	-3.850	-.40360	-.41660	-.40670	-.43780
11.932	.183	-.39170	-.40500	-.39340	-.43830
11.924	4.253	-.39480	-.41230	-.40810	-.44950
GRADIENT		.00108	.00053	-.00018	.00145

CP3	CP4	CP5	CP6
-.39760	-.37770	-.39760	-.51160
-.37620	-.36130	-.37190	-.50760
-.36950	-.36570	-.37690	-.53320
.00346	.00148	.00256	-.00266
CP3	CP4	CP5	CP6
-.40110	-.38030	-.39830	-.51670
-.38210	-.36680	-.37790	-.51330
-.36940	-.35810	-.36840	-.55190
.00391	.00274	.00393	-.00434
CP3	CP4	CP5	CP6
-.41540	-.40060	-.40650	-.51390
-.39470	-.37840	-.38850	-.51790
-.38960	-.37430	-.37340	-.55010
.00318	.00325	.00438	-.00447
CP3	CP4	CP5	CP6
-.42190	-.41320	-.40900	-.51640
-.40670	-.39010	-.40220	-.52820
-.40050	-.38700	-.39580	-.55470
.00264	.00323	.00163	-.00473

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY35) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = 10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 212/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-4.064	-3.846	-41800	-40640	-42180	-41350
-4.062	.195	-42160	-39890	-43160	-40960
-4.062	4.274	-42910	-39770	-44360	-40450
	GRADIENT	-40137	.00107	-400269	.00111
				.00159	.00119

RUN NO. 213/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-0.023	-3.863	-41890	-40640	-42820	-41210
-0.020	.185	-40670	-40080	-41470	-38250
-0.024	4.249	-42810	-36460	-43760	-38880
	GRADIENT	-400114	.00269	-400116	.00164
				.00321	.00280

RUN NO. 214/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
3.952	-3.863	-41430	-41740	-42420	-42940
3.952	.189	-40470	-41860	-40800	-43970
3.960	4.243	-41550	-41220	-42480	-43640
	GRADIENT	-400015	.00064	-400007	.00086
				.00102	.00183

RUN NO. 215/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
8.030	-3.862	-43570	-45440	-43810	-46930
8.038	.183	-41990	-43320	-42140	-46140
8.037	4.237	-44510	-44350	-47740	-47120
	GRADIENT	-400116	.00134	-400105	.00100
				.00001	.00191

RUN NO. 216/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
11.975	-3.842	-45920	-47760	-46860	-49370
11.986	.188	-43180	-44760	-44030	-48220
11.981	4.246	-45130	-44230	-45810	-48440
	GRADIENT	-400097	.00436	-400125	.00115
				.00189	.00419

CP4	CP5	CP6
-41230	-44980	-60980
-41370	-42180	-60860
-41220	-41690	-63350
.00001	.00381	-0.0292

CP4	CP5	CP6
-41570	-43250	-61610
-40120	-41300	-60530
-40170	-40900	-64640
.00172	.00230	-0.00374

CP4	CP5	CP6
-42920	-42540	-62060
-40630	-42120	-60980
-40970	-40360	-63180
.00241	.02269	-0.0138

CP4	CP5	CP6
-45140	-43550	-63080
-42020	-43010	-63460
-42910	-42090	-61770
.00268	.02232	-0.0162

CP4	CP5	CP6
-46530	-45350	-65630
-42950	-44180	-65240
-42150	-42710	-61880
.00541	.02326	-0.0464

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY36) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDSRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 217/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-4.063	-3.844	-30780	-30750	-31670	-34410
-4.055	.194	-30620	-30530	-30570	-32110
-4.060	4.272	-26540	-29310	-31750	-27550
	GRADIENT	.00264	.00104	.00373	.00232
					.00010
					.00435
					.00384
					.00079
					.00091

RUN NO. 218/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
.042	-3.856	-31720	-30540	-31910	-32080
.092	.163	-29750	-27840	-31000	-28970
.085	4.248	-29310	-26630	-30400	-27510
	GRADIENT	.00235	.00235	.00186	.00258
					.00203
					.00405
					.00319
					.00127
					.00031

RUN NO. 219/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
3.973	-3.873	-31460	-30020	-31690	-30320
3.981	.185	-30300	-27670	-31770	-27390
3.966	4.242	-29590	-26420	-31360	-27360
	GRADIENT	.00230	.00444	.00041	.00365
					.00645
					.00434
					.00361
					.00187
					.00253

RUN NO. 220/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
8.050	-3.862	-31560	-29600	-32290	-30260
8.054	.184	-30570	-27100	-31280	-27500
8.061	4.239	-29510	-25230	-30770	-27190
	GRADIENT	.00204	.00539	.00189	.00379
					.00481
					.00583
					.00494
					.00600
					.00339
					.00169

RUN NO. 221/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
11.031	-3.854	-29490	-31610	-30310	-32720
11.035	.188	-28430	-29380	-28430	-31030
11.035	4.259	-29710	-26670	-29760	-32500
	GRADIENT	.00096	.00362	.00057	.00027
					.00299
					.00282
					.00267
					.00240
					.00060



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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY37) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. Y0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOSRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 PACH = .600

RUN NO. 222/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.041	-7.848	-25550	-25950	-26620	-29620	-25410	-26600	-35520	-28290	-25910	-59620
-4.025	-3.845	-24960	-25950	-27180	-29110	-24500	-25740	-32590	-27930	-25840	-57770
-3.896	.184	-22910	-26730	-23900	-30500	-24000	-27040	-31390	-27300	-27530	-54310
-3.930	4.265	-23620	-27370	-24230	-29450	-23400	-27730	-30960	-26820	-26930	-54720
-3.946	8.339	-23550	-28190	-25070	-29780	-23430	-27640	-30150	-26210	-26540	-56530
	GRADIENT	.00164	.00175	.00363	.00041	.00136	.00245	.00238	.00137	.00001	.00375

RUN NO. 223/ 0

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.030	-7.899	-28040	-28490	-28420	-27860	-26630	-26280	-35180	-28410	-26630	-58960
.040	-3.863	-27680	-24400	-28630	-26220	-25570	-24470	-32750	-27700	-27420	-56460
.104	.181	-25540	-25800	-26420	-28160	-23930	-25550	-30630	-27070	-27450	-53730
.102	4.244	-23340	-26920	-23970	-29570	-22970	-26960	-29350	-26160	-27900	-56750
.019	8.303	-22630	-27760	-23660	-29460	-22980	-27170	-29490	-25790	-27240	-58460
	GRADIENT	.00535	.00311	.00575	.00413	.00321	.00307	.00421	.00190	.00059	.00036

RUN NO. 224/ 0

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.035	-7.909	-28840	-25750	-29670	-27470	-26310	-26240	-34510	-28690	-26690	-55310
4.041	-3.867	-27930	-24500	-28870	-26650	-25190	-24440	-32510	-27870	-26320	-49970
4.040	.186	-25950	-24150	-27150	-26490	-23100	-25230	-29500	-27160	-26310	-52970
4.044	4.237	-23270	-25340	-25260	-28250	-22520	-24750	-28720	-26630	-26650	-53160
4.049	8.264	-23540	-25130	-23690	-28190	-23410	-24690	-27590	-24420	-25420	-56990
	GRADIENT	.00575	.00104	.00445	.00197	.00329	.00038	.00468	.00153	.00041	.00394

RUN NO. 225/ 0

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.972	-7.894	-28490	-25840	-30610	-27680	-26510	-26180	-35750	-23230	-26410	-43120
7.984	-3.864	-25960	-25720	-27870	-27800	-24330	-26460	-32810	-23600	-25930	-48330
7.990	.171	-25050	-23710	-26280	-25500	-22900	-25120	-29190	-25450	-25350	-52040
7.993	4.234	-24670	-22740	-26350	-25290	-22460	-23820	-28200	-26050	-25450	-52410
7.968	8.289	-23870	-25240	-25240	-26530	-23440	-24750	-29220	-23740	-25370	-51820
	GRADIENT	.00159	.00358	.00187	.00310	.00231	.00326	.00569	.00314	.00033	.00429

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY37) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .600

RUN NO. 226/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.959	-7.850	-24770	-28360	-25340	-31220	-29330	-27960	-35560	-30170	-29490	-52820
11.981	-3.846	-24360	-28480	-25420	-32200	-28910	-25790	-32550	-27970	-24900	-50090
11.991	.172	-24190	-28430	-26250	-28420	-22770	-24130	-25540	-26540	-25320	-52420
11.955	4.243	-24740	-24620	-26840	-27220	-22300	-23500	-30070	-26430	-24910	-50790
11.975	8.313	-23970	-24280	-25410	-28620	-22710	-23550	-26990	-23490	-24750	-50410
GRADIENT		-0.0047	.00229	-0.0175	.00101	.00063	.00283	.00305	.00150	.00201	-0.0085

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY39) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

RUN NO. 227/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.002	-3.853	-31160	-31780	-30550	-32200	-30000	-31910	-36230	-36060	-40000	-53020
-3.930	.193	-30330	-33530	-30430	-35050	-30130	-32590	-35930	-36160	-36520	-51650
-3.950	4.276	-32280	-34830	-31730	-36440	-30690	-33540	-35950	-35680	-36710	-52390
GRADIENT		-0.0138	-0.0375	-0.0145	-0.0521	-0.0122	-0.0213	.00031	.00022	.00004	.00077

ALPHA  
 3.030  
 3.036  
 3.034

BETA  
 -3.869  
 .183  
 4.255  
 GRADIENT

CP200  
 -32370  
 -32330  
 -32610  
 -0.0030

CP201  
 -34250  
 -34230  
 -34780  
 -0.0065

CP204  
 -32520  
 -32080  
 -32820  
 -0.0037

CP205  
 -35350  
 -35590  
 -35490  
 -0.0138

CP1  
 -30690  
 -30290  
 -31010  
 -0.00040

CP2  
 -33590  
 -33400  
 -34480  
 -0.0111

CP3  
 -36230  
 -33370  
 -34480  
 .00215

CP4  
 -35520  
 -34070  
 -34600  
 .00113

CP5  
 -35930  
 -36590  
 -37030  
 .00221

CP6  
 -52520  
 -51610  
 -52560  
 -0.00005

ALPHA  
 3.844  
 3.895  
 3.906

BETA  
 -3.972  
 .183  
 4.246  
 GRADIENT

CP200  
 -33240  
 -32400  
 -33340  
 -0.0012

CP201  
 -35600  
 -34150  
 -34290  
 .00161

CP204  
 -32840  
 -32660  
 -33650  
 -0.00100

CP205  
 -36780  
 -35590  
 -35640  
 .00140

CP1  
 -31850  
 -30560  
 -31680  
 -0.00004

CP2  
 -34400  
 -33600  
 -34270  
 .00016

CP3  
 -36140  
 -34590  
 -33290  
 .00265

CP4  
 -34660  
 -32970  
 -33560  
 .00135

CP5  
 -35150  
 -35190  
 -34000  
 .00005

CP6  
 -52150  
 -50690  
 -53150  
 -0.0128

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y38) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. YC  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA

BETA  
 -3.851  
 .182  
 4.245  
 GRADIENT

CP200  
 -35140  
 -32850  
 -35530  
 -34460  
 .00232  
 -0.00092

CP201  
 -36340  
 -35530  
 -37210  
 -31450  
 -35570  
 .00011

CP205  
 -35660  
 -37210  
 -35570  
 -35570  
 .00011  
 -0.00072

CP204  
 -35330  
 -33140  
 -35310  
 -35310  
 -0.0050  
 -0.00297

CP1  
 -32690  
 -31450  
 -35570  
 -35570  
 .00154  
 .00069

RUDDER =  
 BDFLAP =  
 ELVN-R =

10.000 SPCERK = 85.000  
 16.300 ELVN-L = 10.000  
 10.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 230/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA

BETA  
 -3.851  
 .187  
 4.255  
 GRADIENT

CP200  
 -35140  
 -32850  
 -35530  
 -34460  
 .00232  
 -0.00092

CP201  
 -36340  
 -35530  
 -37210  
 -31450  
 -35570  
 .00011

CP205  
 -35660  
 -37210  
 -35570  
 -35570  
 .00011  
 -0.00072

CP204  
 -35330  
 -33140  
 -35310  
 -35310  
 -0.0050  
 -0.00297

CP1  
 -32690  
 -31450  
 -35570  
 -35570  
 .00154  
 .00069

RUN NO. 231/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA

BETA  
 -3.829  
 .185  
 4.285  
 GRADIENT

CP200  
 -34940  
 -35440  
 -35510  
 -34940  
 .00453  
 -0.00453

CP201  
 -3190  
 -36940  
 -37000  
 -35570  
 .00023  
 -0.00365

CP205  
 -38300  
 -39550  
 -35950  
 -35950  
 -0.0081  
 -0.00307

CP204  
 -35530  
 -37720  
 -35570  
 -35570  
 -0.00365  
 -0.00365

CP1  
 -32600  
 -33470  
 -35950  
 -35950  
 .00307  
 .00307

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA

BETA  
 -3.67  
 .190  
 4.277  
 GRADIENT

CP200  
 -36150  
 -32850  
 -35530  
 -34970  
 .00253  
 -0.00027

CP201  
 -37520  
 -37150  
 -39570  
 -35570  
 .00253  
 -0.00019

CP205  
 -38470  
 -39900  
 -42150  
 -42150  
 -0.00458  
 -0.00038

CP204  
 -35590  
 -3630  
 -35730  
 -35730  
 -0.0019  
 -0.0019

CP1  
 -34540  
 -33250  
 -35920  
 -35920  
 .00118  
 .00118

RUDDER =  
 BDFLAP =  
 ELVN-R =

10.000 SPCERK = 85.000  
 15.300 ELVN-L = 10.000  
 10.000 MACH = 1.250

## PARAMETRIC DATA

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y33) ( 12 AUG 75 )

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY39) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.250

RUN NO. 234/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.058	-3.859	-35790	-37210	-36620	-39290	-34460	-35940	-32970	-37990	-45220	-63140
.062	.177	-37440	-37490	-35390	-39810	-33320	-35930	-35320	-35970	-41570	-60290
.021	4.254	-35340	-35630	-36990	-42210	-34830	-37930	-35670	-35020	-42740	-62720
	GRADIENT	-100056	-100299	-100045	-100360	-100046	-100121	-100024	-100018	-100429	-100051

RUN NO. 235/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.934	-3.973	-37270	-39530	-37670	-41840	-35240	-39120	-41420	-35000	-5540	-63710
3.935	.189	-36470	-39350	-37810	-42210	-35330	-39590	-40300	-37990	-57970	-61940
3.939	4.242	-37470	-39770	-38130	-42200	-35890	-39330	-40600	-37940	-5590	-61940
	GRADIENT	-100025	-100327	-100057	-100044	-100076	-100057	-100121	-100109	-100429	-100219

RUN NO. 236/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.936	-3.823	-40290	-42470	-40930	-42620	-37280	-41150	-42210	-39970	-45920	-62730
7.997	.162	-39990	-42410	-39990	-44330	-35930	-41620	-42410	-39990	-45920	-62730
7.978	4.243	-41490	-41100	-41860	-42850	-38600	-41010	-42390	-39120	-41490	-60720
	GRADIENT	-100146	-100132	-100119	-100028	-100163	-100017	-100022	-100105	-100339	-100219

RUN NO. 237/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.889	-3.849	-42690	-42720	-42490	-42940	-39540	-42220	-42330	-41090	-46090	-60000
11.810	.187	-40780	-42330	-40920	-44540	-35490	-42910	-43640	-41490	-46090	-60000
11.955	4.232	-41510	-42290	-41390	-44420	-35190	-41110	-42830	-40570	-46090	-60000
	GRADIENT	-100091	-100235	-100135	-100182	-100056	-100137	-100005	-100064	-100331	-100054

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 253

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY40) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.100

RUN NO. 238/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.939	-3.842	-4.2570	-4.3790	-4.1530	-4.5770	-4.0250	-4.3800	-4.5120	-4.3610	-6.2290	-7.8180
-3.957	.194	-4.2030	-4.2730	-4.1580	-4.6990	-3.9340	-4.2500	-4.5730	-4.3940	-6.5390	-7.7380
-3.996	4.277	-4.1920	-4.5710	-4.4170	-4.1050	-4.0720	-4.3430	-4.6380	-4.3860	-6.2360	-7.8640
	GRADIENT	.00080	-.00237	-.00326	.00593	-.00058	.00045	-.00155	-.00031	-.00007	-.00082

RUN NO. 239/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.015	-3.867	-4.1910	-4.3350	-4.2170	-4.5430	-3.9270	-4.3380	-4.5840	-4.3190	-5.6230	-6.9590
.018	.181	-3.9310	-4.2350	-4.1350	-4.6310	-3.7720	-4.2460	-4.5700	-4.1260	-5.3160	-6.8850
.012	4.250	-4.0570	-4.6100	-4.1820	-4.6390	-3.8790	-4.2940	-4.5680	-4.1950	-4.9060	-6.5980
	GRADIENT	.00152	-.00339	.00043	-.00118	.00059	.00054	.00020	.00153	.00854	.00445

RUN NO. 240/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.919	-3.865	-4.1460	-4.4890	-4.3160	-4.7390	-3.9400	-4.4490	-4.7210	-4.4350	-4.9690	-6.2000
3.917	.178	-4.1380	-4.5180	-4.1920	-4.8140	-3.9080	-4.4510	-4.6990	-4.1940	-4.9510	-6.2040
3.924	4.244	-4.1960	-4.6050	-4.3260	-4.8320	-3.9590	-4.5310	-4.6540	-4.1910	-4.9590	-6.3260
	GRADIENT	-.00062	-.00143	-.00013	-.00115	-.00022	-.00101	.00083	.00301	.00494	-.00156

RUN NO. 241/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.901	-3.860	-4.5340	-4.7750	-4.7320	-4.8480	-4.2530	-4.6580	-5.0170	-4.5970	-5.0240	-6.3870
7.905	.181	-4.5260	-4.7550	-4.6510	-4.6580	-4.1940	-4.6970	-4.7600	-4.3360	-5.0570	-6.3970
7.904	4.239	-4.4410	-4.8240	-4.4620	-5.0980	-4.2310	-4.8120	-4.8590	-4.4010	-4.6490	-6.6470
	GRADIENT	.00115	-.00061	.00333	-.00297	.00027	-.00190	.00195	.00242	.00463	-.00321

RUN NO. 242/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.906	-3.844	-4.6700	-4.8070	-4.7220	-4.9370	-4.4310	-4.6900	-5.1150	-4.9560	-5.2590	-7.1610
11.809	.188	-4.4780	-4.6240	-4.4820	-4.8250	-4.2670	-4.6070	-4.7740	-4.7060	-5.0520	-6.7580
11.865	4.250	-4.6950	-4.6000	-4.4710	-4.8410	-4.3980	-4.6320	-4.8180	-4.6080	-4.9590	-6.5570
	GRADIENT	-.00031	.00255	.00004	.00118	.00040	.00071	.00356	.00442	.00462	.00746

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) - 140A/B/C/R ORBITER

(REBY41) ( 12 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = 10.000 SPCBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 243/ 0 RV/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.997	-3.840	-36210	-39710	-34810	-43330	-34890	-36260	-41690	-38290	-40730	-47880
-3.991	.189	-35490	-39940	-33770	-40650	-33760	-36240	-41630	-37920	-38980	-46920
-3.992	4.274	-34510	-39820	-34450	-39930	-34370	-37270	-41090	-37010	-35780	-48340
GRADIENT		.00197	.00110	.00044	.00418	.00064	-.00125	.00074	.00158	.00457	-.00057

RUN NO. 244/ 0 RV/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.052	-3.863	-35540	-39190	-34720	-38810	-34120	-35960	-39990	-37190	-39090	-47710
.055	.182	-34380	-37270	-34740	-36670	-32630	-35870	-40380	-36340	-37240	-47390
.070	4.253	-34740	-37700	-34690	-38910	-32860	-36660	-39770	-36630	-36940	-45740
GRADIENT		.00111	.00060	.00011	-.00012	.00155	-.00111	.00026	.00069	.00263	-.00250

RUN NO. 245/ 0 RV/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.947	-3.868	-35550	-37220	-35560	-38930	-33650	-35920	-37790	-35520	-37480	-49520
4.018	.184	-34120	-35990	-34850	-37930	-32180	-35340	-38510	-35300	-36620	-47940
4.018	4.245	-34560	-37480	-34940	-37360	-32400	-36900	-38370	-35690	-37180	-51330
GRADIENT		.00147	.00032	.00076	.00190	.00154	-.00121	-.00071	-.00021	.00037	-.00223

RUN NO. 246/ 0 RV/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.919	-3.861	-34280	-37550	-34730	-38520	-33090	-35550	-38530	-35660	-36920	-53020
7.925	.181	-33270	-36070	-34910	-38460	-32480	-34940	-37920	-35080	-35570	-51240
7.877	4.247	-33780	-35910	-34820	-37810	-32030	-34230	-36190	-35900	-37730	-53760
GRADIENT		.00051	.00091	-.00011	.00088	.00131	.00163	.00289	-.00030	-.00100	-.00092

RUN NO. 247/ 0 RV/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.352	-3.850	-34590	-36700	-35500	-39570	-32220	-36180	-39450	-37760	-38970	-57200
11.818	.191	-31540	-34580	-32890	-37490	-30850	-34300	-38090	-35530	-37920	-55000
11.881	4.259	-32120	-34060	-34700	-38040	-31800	-34250	-36150	-34250	-38300	-56390
GRADIENT		.00304	.00325	.00234	.00188	.00051	.00238	.00284	.00433	.00063	-.00039

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY42) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0360

RUDDER = 10.000 SPCBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

RUN NO. 248/ 0		RN/L = 4.87		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-4.049	-7.852	-32300	-28890	-33750	-30200
-3.971	-3.842	-31110	-27850	-33920	-30990
-3.838	.191	-27900	-34400	-27210	-39490
-3.933	4.273	-30830	-35330	-32960	-39380
-3.999	8.343	-30930	-35930	-32520	-39230
	GRADIENT	.00033	-0.00919	.00115	-0.01032
					.00045
					-0.00958
					.00144
					-0.00395
					.00091
					-0.00348

RUN NO. 249/ 0		RN/L = 4.87		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-0.003	-7.885	-32450	-29440	-33810	-30630
.104	-3.860	-32310	-29320	-34590	-30370
.114	.190	-29040	-33040	-27830	-36920
.111	4.251	-31500	-35760	-33910	-38500
.040	8.310	-32000	-35530	-33200	-39060
	GRADIENT	.00100	-0.00794	.00132	-0.01002
					.00153
					-0.00952
					.00105
					-0.00222
					.00000
					-0.00012

RUN NO. 250/ 0		RN/L = 4.88		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
4.041	-7.899	-32970	-29920	-33820	-31460
3.969	-3.860	-33010	-29250	-34140	-31710
4.049	.193	-28000	-31900	-28160	-37240
3.947	4.242	-31560	-35170	-34160	-38930
3.985	8.292	-31680	-35650	-32900	-39320
	GRADIENT	.00179	-0.00731	.00002	-0.00991
					.00125
					-0.00821
					.00023
					-0.00017
					.00075
					-0.00081

RUN NO. 251/ 0		RN/L = 4.88		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
7.905	-7.888	-34000	-28300	-35990	-30430
7.915	-3.855	-32270	-28110	-33810	-31300
8.038	.183	-27510	-32190	-28690	-36180
8.035	4.244	-32770	-35650	-35370	-37380
8.035	8.296	-33440	-36750	-35550	-37540
	GRADIENT	-0.00063	-0.00931	-0.00194	-0.00750
					.00023
					-0.00683
					-0.00124
					.00006
					-0.00262
					-0.00141

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY42) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

RUN NO. 252/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.910	-7.853	-26420	-32190	-28240	-36070	-26260	-30510	-36580	-32100	-32590	-65030
11.930	-3.835	-28010	-31150	-29150	-76900	-26730	-29830	-37540	-31750	-32360	-62180
11.956	.177	-26550	-31330	-28540	-35180	-26460	-30780	-29670	-29670	-34090	-56810
11.376	4.252	-31270	-34730	-35160	-37430	-28490	-34270	-36320	-30460	-33940	-62690
12.034	8.318	-32620	-34680	-34320	-36400	-28040	-33980	-33000	-31170	-37810	-69250
	GRADIENT	-1.00405	-1.00444	-1.00745	-1.00067	-1.00218	-1.00550	.00149	.00159	-1.00195	-1.00065

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY43) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 253/ 0 RN/L = 3.67 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.070	-3.850	-36130	-38740	-34990	-35220	-32750	-36450	-38040	-36050	-38350	-55280
-4.069	.187	-35950	-37010	-34860	-34830	-33060	-36300	-38080	-36160	-37320	-53660
-4.078	4.272	-35560	-36020	-35210	-35780	-33460	-35520	-36870	-35450	-38560	-55810
	GRADIENT	.00058	.00335	-1.00027	-1.00059	-1.00087	.00115	.00144	.00074	-1.00026	-1.00066

RUN NO. 254/ 0 RN/L = 3.65 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.029	-3.865	-35730	-36530	-35140	-33830	-33550	-36540	-37420	-36610	-36540	-55210
-4.015	.186	-33930	-35250	-33590	-33350	-32310	-35550	-36260	-35380	-36450	-54230
-4.021	4.247	-34370	-35650	-34780	-34180	-32350	-35010	-36170	-34820	-37640	-57090
	GRADIENT	.00168	.00121	.00044	-1.00043	.00148	.00189	.00154	.00221	-1.00135	-1.00232

RUN NO. 255/ 0 RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.531	-3.870	-35310	-32780	-35130	-33300	-33620	-36340	-37480	-35060	-34370	-54450
3.931	.185	-33950	-33010	-34120	-33100	-32270	-35680	-35490	-35300	-36920	-52930
3.933	4.242	-34500	-34930	-33370	-34860	-32290	-34790	-34840	-34670	-36920	-54130
	GRADIENT	.00563	-1.00265	.00217	-1.00192	.00164	.00191	.00325	.00048	-1.00314	-1.00039



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY43) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 256/ 0 RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.938	-3.866	-35650	-33610	-34460	-33750	-33570	-36060	-37620	-35420	-34350	-56280
8.006	.180	-35220	-33510	-34790	-33110	-32670	-35670	-37160	-34870	-36220	-52820
8.004	4.244	-34350	-34510	-35590	-35200	-32470	-35380	-36090	-35350	-36350	-56620
	GRADIENT	.00160	-.00111	-.00138	-.00179	.00136	.00084	.00189	.00009	-.00246	-.00043

RUN NO. 257/ 0 RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.977	-3.853	-36970	-38330	-37540	-40860	-32760	-36310	-39650	-36410	-37310	-60190
11.988	.182	-34360	-36020	-34530	-38630	-31290	-35260	-37180	-33390	-38010	-56660
11.978	4.261	-36040	-37410	-36540	-39950	-33060	-36890	-35800	-32440	-38640	-61540
	GRADIENT	.00114	.00113	.00122	.00111	-.00038	-.00072	.00474	.00489	-.00164	-.00168

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY44) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 258/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.010	-7.850	-30070	-30100	-29200	-32660	-28870	-29860	-36450	-31950	-34870	-65510
-3.994	-3.842	-29190	-30140	-28470	-32300	-28240	-29460	-34830	-31110	-34310	-62800
-3.995	.188	-29030	-30450	-27920	-32770	-28300	-30230	-35690	-31170	-33720	-58760
-3.992	4.269	-28210	-31240	-27380	-33860	-28060	-30940	-34580	-30610	-34650	-64470
-4.007	8.349	-28190	-32520	-26660	-35040	-28200	-30670	-34110	-30600	-34110	-70690
	GRADIENT	.00121	-.00136	.00134	-.00192	.00022	-.00182	.00031	.00062	-.00042	-.00208

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY44) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BOFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

RUN NO. 259/ 0		RN/L = 4.88		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
.039	-7.886	-31450	-31120	-30790	-29230
.052	-3.865	-30020	-30120	-30540	-28410
.053	.192	-28860	-29360	-32000	-29210
.049	4.248	-28470	-31620	-33470	-28070
.044	8.307	-28920	-33220	-35160	-31120
GRADIENT		.00191	-.00185	.00211	-.00042
				-.00212	.00042
					-.00152
					.00128
					-.00054
					-.00145
					-.00257

RUN NO. 260/ 0		RN/L = 4.88		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
3.960	-7.902	-31920	-29380	-32630	-29240
3.964	-3.864	-30670	-30100	-32090	-28400
3.969	.183	-29240	-28740	-32170	-27270
3.972	4.243	-26810	-31650	-33800	-28480
3.932	8.290	-30920	-33700	-34080	-31790
GRADIENT		.00229	-.00196	.00232	-.00290
				-.00211	-.00010
					-.00276
					-.00056
					-.00089
					-.00157
					-.00281

RUN NO. 261/ 0		RN/L = 4.87		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
8.025	-7.890	-32410	-30920	-33810	-30300
8.036	-3.859	-30060	-29350	-31200	-28150
8.040	.178	-28320	-28550	-29220	-26410
8.039	4.241	-29670	-31720	-29640	-27320
8.033	8.285	-31520	-33990	-31050	-28930
GRADIENT		.00171	-.00293	.00192	-.00312
					.00102
					-.00192
					.00108
					-.00059
					-.00315
					-.00058

RUN NO. 262/ 0		RN/L = 4.87		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
12.021	-7.852	-26340	-29170	-28390	-26660
11.932	-3.840	-23350	-29090	-30390	-27100
11.946	.176	-27730	-30620	-29300	-26090
11.941	4.247	-30850	-33570	-31280	-27920
11.923	8.307	-28950	-32920	-30290	-27270
GRADIENT		-.00125	-.00554	-.00111	-.00524
					-.00512
					.00129
					-.00081
					-.00020
					-.00420
					-.01840
					-.09710
					-.09850
					-.07110
					-.00245



AMES 11-073(OA148) -140A/B/C/R ORBITER

(RE8Y46) ( 12 AUG 75 )

## REFERENCE DATA

=	SREF	=	2690.0000	SQ.FT.	=	XMRP	=	1076.5800	IN.	XO
=	LREF	=	474.8000	IN.	=	YMRP	=	.0000	IN.	YO
=	BREF	=	936.6800	IN.	=	ZMRP	=	375.0000	IN.	ZO
=	SCALE	=	.0300							

RUDDER  
BOFLAP  
ELVN-R

DBRK	=	55.000
VN-L	=	4.000
CH	=	.600

## PARAMETRIC DATA

RUN NO.	268/ 0	RN/L = 4.85	GRADIENT INTERVAL = -5.00/ 5.00
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ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.081	-7.851	-28400	-29560	-27530	-31900	-28060	-29680	-37010	-31250	-34390	-64750
3.953	-3.833	-27220	-28660	-26510	-31450	-27190	-28790	-35350	-30560	-32730	-60900
3.951	1.188	-27430	-28690	-25970	-31690	-27280	-30270	-35060	-30080	-33110	-57110
3.958	4.269	-26530	-30420	-25650	-33540	-26260	-30370	-34930	-28870	-34130	-62500
3.973	8.335	-27020	-30430	-26330	-33550	-27590	-30070	-31980	-28850	-34420	-66890
	GRADIENT	0.0035	-0.0217	0.0105	-0.0258	0.0115	-0.0195	0.0052	0.0022	-0.0173	-0.0244

RUN NO.	269/ 0	RN/L = 4.85	GRADIENT INTERVAL = -5.00/ 5.00
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ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.060	-7.833	-29950	-28460	-23510	-31280	-28490	-30440	-36810	-31640	-33830	-68160
.070	-3.855	-25550	-28000	-28250	-30840	-27550	-28940	-35570	-30740	-32870	-62360
.070	.181	-27000	-27510	-27350	-31590	-26540	-26410	-33590	-29580	-32650	-58670
.063	4.248	-26300	-30030	-26460	-33170	-27600	-31020	-32590	-28750	-34000	-65520
.063	8.256	-26300	-31550	-27350	-33760	-27750	-30820	-32590	-28300	-33470	-68320
	GRADIENT	-20160	-22355	-00222	-00267	-00005	-00269	.00367	.00245	-00139	-00317

RUN NO.	270/ 0	RN/L = 4.85	GRADIENT INTERVAL = -5.00/ 5.00
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ALPHA	BETA	C200	C201	C204	C205	CP1	CP2	CP3	CP4	CP5	CP6
+	-7.91	-3090	-2940	-31070	-30480	-28950	-30300	-37390	-32470	-32640	-66500
+	-3.62	-29370	-29420	-29080	-30470	-28320	-29300	-34580	-30370	-30350	-60530
+	4.027	-26270	-28110	-27080	-20950	-26090	-28830	-31780	-27870	-56400	-63170
+	4.030	-27630	-30130	-27980	-33500	-27950	-31350	-33390	-28630	-31470	-63120
+	8.228	-28650	-30970	-29350	-34370	-28190	-30890	-33050	-27780	-31900	-67200
GRADIENT	0.091	-00091	-00211	-00136	-00374	00042	-00253	00147	-00209	-00139	-00308

RUN NO.	271 / 0	R/V/L =	4.84	GRADIENT INTERVAL =	-5.00 /	5.00
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BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	$\Gamma^4$	CP5	CP6
ALPHA	-30320	-29260	-31080	-31150	-26530	-30970	-37760	-32750	-32050	-55040
1	-29360	-28980	-30440	-26320	-27790	-29220	-33950	-29380	-31700	-58560
2	-2950	-29120	-29120	-27950	-27950	-28120	-31760	-29800	-29800	-58130
3	-28270	-30130	-2850	-33050	-27050	-30240	-32190	-29350	-32440	-60640
4	-28790	-29920	-27710	-34690	-25450	-30950	-31660	-32900	-32900	-53940
5	-00234	-00234	-00276	-00297	-00090	-00126	-00276	-00127	-00092	-00257
GRADIENT	-00234	-00234	-00276	-00297	-00090	-00126	-00276	-00127	-00092	-00257

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y46) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

RUN NO. 272/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.987	-7.852	-25630	-25690	-25650	-28920	-27790	-30340	-36360	-32520	-32170	-67180
12.008	-3.842	-25500	-27560	-30390	-27090	-27180	-28590	-35720	-30140	-29320	-59490
12.016	.174	-27800	-22290	-23600	-29960	-26120	-28300	-31870	-27660	-30780	-57460
11.917	4.245	-27500	-25150	-28510	-32360	-26020	-26860	-31200	-26960	-28950	-58350
11.904	9.309	-25940	-28700	-28160	-34460	-25580	-29000	-27190	-26560	-32770	-68070
	GRADIENT	.00247	-.00184	.00231	-.00528	.00143	-.00023	.00558	.00393	.00347	.00140

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y47) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPCBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.400

RUN NO. 273/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.021	-3.852	-31350	-32840	-31420	-34070	-30490	-32590	-37330	-34550	-39120	-51720
-4.015	.189	-30380	-32580	-29980	-34090	-29860	-31770	-34750	-33760	-37700	-51850
-4.023	4.275	-31870	-32170	-32500	-33400	-30890	-31690	-34310	-34190	-39770	-53640
	GRADIENT	-.00065	.00082	-.00134	.00083	-.00050	.00111	.00371	.00044	-.00081	-.00237

RUN NO. 274/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-.011	-3.871	-32640	-33820	-33230	-34620	-31040	-33450	-35990	-34440	-39290	-52750
-.002	.186	-32450	-33780	-32690	-35120	-30880	-33550	-34370	-33570	-37700	-51770
-.007	4.251	-33080	-33390	-33320	-35580	-32110	-33550	-34610	-34730	-39470	-53950
	GRADIENT	-.00054	-.00007	-.00031	-.00118	-.00132	-.00012	.00170	-.00036	-.00022	-.00148

RUN NO. 275/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.927	-3.876	-33740	-34930	-34290	-35990	-31780	-34350	-34940	-33150	-35580	-54510
3.927	.191	-33930	-34790	-34370	-35710	-31730	-33860	-34750	-33190	-36060	-51630
3.930	4.244	-34220	-35340	-34800	-37110	-33030	-35030	-35130	-34820	-39020	-53430
	GRADIENT	-.00067	-.00043	-.00064	-.00138	-.00154	-.00084	-.00023	-.00205	-.00424	.00133

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY47) ( 12 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 276/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.663	-3.671	-35460	-35890	-36480	-33380	-35650	-36730	-36210	-36400	-52580	
7.934	.174	-35150	-34890	-35460	-32640	-34530	-35450	-33490	-37600	-50240	
7.934	4.239	-34650	-35630	-34720	-32990	-35230	-33820	-33230	-40540	-54280	
	GRADIENT	.00100	.00036	.00217	.00052	.00049	.00052	.00359	.00384	.00511	-0.0210

RUN NO. 277/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.867	-3.858	-35460	-37530	-35770	-36460	-34320	-36700	-38270	-35810	-37610	-51350
11.873	.176	-35370	-35110	-37100	-36930	-34060	-35880	-36700	-34910	-37600	-50260
11.868	4.257	-35780	-36510	-35210	-38090	-33280	-36360	-35550	-33720	-39500	-53210
	GRADIENT	.00066	.00122	.00070	.00201	.00054	.00042	.00323	.00372	.00342	-0.0230

RUN NO. 278/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
15.839	-3.834	-36800	-36130	-36540	-39760	-35350	-37830	-39950	-35200	-39340	-55600
15.851	.174	-36530	-40140	-35130	-42170	-34830	-36910	-38560	-37150	-39200	-53020
15.843	4.283	-36780	-39250	-34920	-41330	-34920	-38200	-37230	-35500	-44740	-56420
	GRADIENT	.00126	-0.0137	.00248	.00192	.00053	.00045	.00335	.00255	.00568	-0.0472

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 279/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
15.834	-3.949	-34570	-35390	-34720	-37720	-33210	-35770	-40510	-37440	-43810	-65110
15.855	.169	-34340	-36650	-34340	-36980	-33600	-35850	-36180	-37360	-46140	-66410
15.815	4.273	-36240	-38010	-36880	-41040	-35350	-37080	-40230	-35540	-52030	-68050
	GRADIENT	.00205	.00200	.00267	.00409	.00252	.00162	.00030	.00135	.01013	-0.0120

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY48) ( 12 AUG 75 )

## PARAMETRIC DATA

RUDDER = -10.000 SPDERK = 85.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.400

## PARAMETRIC DATA

RUDDER = -10.000 SPDERK = 85.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.400

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y48) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 65.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.250

RUN NO. 280/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.012	-3.869	-36330	-37410	-37930	-38620	-34490	-37200	-39020	-36970	-43470	-63940
.020	.189	-36140	-37200	-37580	-38430	-34160	-36710	-38700	-36690	-43490	-62870
.014	4.249	-36550	-39400	-36860	-40720	-35080	-37860	-38850	-39150	-50020	-67000
GRADIENT		.00044	.00122	.00132	.00259	.00073	.00081	.00021	.00145	.00807	.00377

RUN NO. 281/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.951	-3.873	-39370	-39040	-39440	-39650	-36420	-38560	-40030	-36520	-41650	-65170
3.960	.185	-37830	-36650	-39060	-40480	-35990	-38610	-39570	-37000	-42670	-61700
3.954	4.240	-39740	-39330	-39210	-41030	-36910	-39410	-39640	-37380	-48740	-66630
GRADIENT		.00021	.00036	.00028	.00169	.00060	.00105	.00048	.00141	.00874	.00180

RUN NO. 282/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.898	-3.868	-40470	-40940	-41200	-42380	-38340	-40430	-42720	-41730	-41590	-60110
8.000	.178	-40280	-39810	-41300	-40830	-37700	-39870	-41120	-36050	-42700	-58350
8.003	4.235	-40070	-41010	-39550	-42170	-38410	-41070	-40340	-37720	-50240	-65990
GRADIENT		.00049	.00009	.00186	.00026	.00009	.00079	.00294	.00495	.01068	.00726

RUN NO. 283/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.933	-3.854	-41570	-43760	-440360	-45370	-39800	-42960	-44570	-42800	-42890	-57320
11.941	.176	-40850	-43590	-41150	-44460	-39380	-42820	-43460	-40890	-43430	-56170
11.936	4.253	-40910	-41670	-41450	-44050	-39940	-41440	-40880	-39910	-46680	-62200
GRADIENT		.00081	.00258	.00138	.00163	.00106	.00189	.00456	.00356	.00468	.00604

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY-9) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 GREF = 936.6900 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = 85.000  
 BDFLAP = 4.000  
 ELVN-R = 1.100

## PARAMETRIC DATA

-10.003 SPCBFX  
 16.330 ELVN-L  
 4.000 MACH

RUN NO. 284/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.022	-3.649	-3.3940	-4.2330	-3.3580	-4.4950	-3.8800	-4.2360	-4.5130	-4.1130	-6.2240	-7.4110
-4.022	.189	-4.0590	-4.4720	-4.1340	-4.8250	-3.9390	-4.1980	-4.5100	-4.1530	-6.2340	-7.2560
-4.029	4.271	-4.2530	-4.7740	-4.2970	-4.7910	-4.1420	-4.3660	-4.5710	-4.3150	-6.1710	-7.4380
	GRADIENT	-1.00327	-1.00667	-1.00405	-1.00364	-1.00323	-1.00161	-1.00002	-1.00230	-1.00181	-1.00034

RUN NO. 285/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.025	-3.266	-4.1130	-4.2150	-4.2030	-4.2500	-3.5780	-4.1230	-4.3000	-4.0280	-4.5900	-7.0180
.030	.185	-4.3940	-4.2290	-4.0900	-4.5340	-4.2740	-4.0910	-4.2500	-4.0750	-4.2500	-6.5480
.026	4.247	-4.1150	-4.4330	-4.1710	-4.6530	-3.9250	-4.2700	-4.3570	-4.2120	-4.5320	-6.6180
	GRADIENT	.00010	-1.00470	.00039	-1.00435	-1.00059	-1.00181	-1.00183	-1.00316	-1.00051	-1.00220

RUN NO. 286/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.995	-3.187	-4.4330	-4.2150	-4.3910	-4.3150	-4.0740	-4.3290	-4.3830	-4.2150	-4.5570	-6.2150
3.996	.165	-4.1590	-4.2790	-4.2900	-4.4880	-3.9780	-4.2650	-4.3650	-4.1620	-4.5700	-6.5580
3.993	4.339	-4.2640	-4.4530	-4.2830	-4.4820	-4.0550	-4.4110	-4.3730	-4.3300	-4.5600	-6.5130
	GRADIENT	.00002	-1.00342	.00130	-1.00206	.00082	-1.00105	.00005	.00004	-1.00004	-1.00055

RUN NO. 287 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.942	-3.185	-4.4510	-4.4370	-4.6430	-4.4920	-4.2830	-4.5150	-4.6250	-4.4430	-4.5700	-6.3070
3.942	.173	-4.4510	-4.5630	-4.4190	-4.7520	-4.2700	-4.5430	-4.6380	-4.4410	-4.5710	-6.5830
3.944	4.232	-4.4430	-4.5510	-4.4330	-4.7340	-4.2460	-4.5200	-4.5970	-4.4250	-4.5660	-6.4500
	GRADIENT	.00012	-1.00314	.00252	-1.00348	.00045	-1.00106	.00035	.00007	-1.00009	-1.00054

RUN NO. 289/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.980	-3.1645	-4.6920	-4.5260	-4.6030	-5.1570	-4.4420	-4.8210	-4.9090	-4.6180	-5.7061	-6.5600
11.986	.181	-4.4590	-4.7580	-4.4640	-4.9400	-4.3000	-4.7280	-4.7840	-4.4410	-5.1240	-6.5740
11.989	4.253	-4.6550	-4.7030	-4.7570	-4.9290	-4.4200	-4.7480	-4.7950	-4.4300	-5.3310	-6.6300
	GRADIENT	.00046	.00016	.00056	.00033	.00027	.00090	.00052	.00043	-1.00002	-1.00007



DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBUS) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .900

RUN NO. 289/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-4.039	-3.850	-34920	-33600	-35560	-35440
-4.026	.188	-33480	-35460	-33530	-39710
-4.037	4.267	-32970	-37610	-32610	-34810
	GRADIENT	.00240	-0.0494	.00363	-0.0820
					.00201
					-0.0335
					-0.0082
					-0.0364
					-0.0446
					-0.0088
					-0.0410
					-0.0150
					-0.0120
					-0.0088

RUN NO. 290/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
.032	-3.867	-34430	-33360	-34830	-34140
.035	.184	-31930	-34580	-33900	-39310
.028	4.248	-33220	-37990	-33050	-40920
	GRADIENT	.00149	-0.0571	.00219	-0.0935
					.00010
					-0.00430
					-0.0007
					-0.03150
					-0.00482
					-0.00459
					-0.00450
					-0.00450
					-0.00450
					-0.00450

RUN NO. 291/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
3.995	-3.868	-33480	-31650	-34700	-32880
4.003	.184	-31050	-33290	-32550	-36570
4.005	4.239	-32340	-36470	-34910	-39080
	GRADIENT	.00116	-0.0591	.00026	-0.0765
					.00099
					-0.00405
					.00136
					-0.03025
					-0.00152
					-0.00143
					-0.00143
					-0.00143
					-0.00143

RUN NO. 292/ 0		RN/L = 3.58		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
8.040	-3.870	-32780	-31830	-35210	-33180
8.045	.178	-31670	-32830	-32780	-35990
8.043	4.236	-33130	-35960	-33370	-37370
	GRADIENT	-0.00443	-0.0510	.00277	-0.0517
					.00016
					-0.00381
					.00254
					-0.03150
					-0.00131
					-0.00126
					-0.00126
					-0.00126
					-0.00126

RUN NO. 293/ 0		RN/L = 3.57		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
11.980	-3.854	-33890	-32170	-35120	-34150
11.989	.180	-32860	-33640	-33970	-36780
11.979	4.260	-32760	-36330	-33750	-38690
	GRADIENT	.00139	-0.0513	.00169	-0.0559
					.00094
					-0.00240
					.00256
					-0.03550
					-0.00162
					-0.00162
					-0.00162
					-0.00162

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REVISED 11-12-75)

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRFP = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETER DATA

RUDER = -10.000 SDEPR = 85.000  
 BOUTAP = 16.000 SDEVL = 1.000  
 ELVAP = 1.000 WASH = .600

RUN NO. 294/ 0 RN/L = 4.91 GRADIENT INTERVAL = -5.00 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP5	CP6
-3.976	-1.65+	-30720	-26800	-30720	-31530	-28850	-27330	-25500	-30800	-53800
-3.983	-3.64+	-30490	-26910	-30940	-30320	-29010	-27900	-25500	-30800	-53800
-3.986	.169	-30350	-26990	-30990	-30740	-28950	-28900	-25500	-30800	-53800
-3.993	.659	-30200	-27020	-31020	-30590	-28800	-28800	-25500	-30800	-53800
-3.990	6.339	-30050	-27050	-31050	-30440	-28650	-28800	-25500	-30800	-53800
GRADIENT		.00559	-.00775	.00603	-.00364	.00254	-.00450			

RUN NO. 295/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP5	CP6
-3.976	-1.65+	-30720	-26800	-30720	-31530	-28850	-27330	-25500	-30800	-53800
-3.983	-3.64+	-30490	-26910	-30940	-30320	-29010	-27900	-25500	-30800	-53800
-3.986	.169	-30350	-26990	-30990	-30740	-28950	-27900	-25500	-30800	-53800
-3.993	.659	-30200	-27020	-31020	-30590	-28800	-28900	-25500	-30800	-53800
-3.990	6.339	-30050	-27050	-31050	-30440	-28650	-28800	-25500	-30800	-53800
GRADIENT		.00559	-.00775	.00603	-.00364	.00254	-.00450			

RUN NO. 296/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP5	CP6
-3.976	-1.65+	-30720	-26800	-30720	-31530	-28850	-27330	-25500	-30800	-53800
-3.983	-3.64+	-30490	-26910	-30940	-30320	-29010	-27900	-25500	-30800	-53800
-3.986	.169	-30350	-26990	-30990	-30740	-28950	-27900	-25500	-30800	-53800
-3.993	.659	-30200	-27020	-31020	-30590	-28800	-28900	-25500	-30800	-53800
-3.990	6.339	-30050	-27050	-31050	-30440	-28650	-28800	-25500	-30800	-53800
GRADIENT		.00559	-.00775	.00603	-.00364	.00254	-.00450			

RUN NO. 297/ 0 RN/L = 4.64 GRADIENT INTERVAL = -5.00 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP5	CP6
-3.976	-1.65+	-30720	-26800	-30720	-31530	-28850	-27330	-25500	-30800	-53800
-3.983	-3.64+	-30490	-26910	-30940	-30320	-29010	-27900	-25500	-30800	-53800
-3.986	.169	-30350	-26990	-30990	-30740	-28950	-27900	-25500	-30800	-53800
-3.993	.659	-30200	-27020	-31020	-30590	-28800	-28900	-25500	-30800	-53800
-3.990	6.339	-30050	-27050	-31050	-30440	-28650	-28800	-25500	-30800	-53800
GRADIENT		.00559	-.00775	.00603	-.00364	.00254	-.00450			

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 267

AMES 11-073(0A148) -140A/B/C/R ORBITER  
(REBY51) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	RUDDER =	BOFLAP =	ELVN-R =
12.002	-7.847	-26750	-28540	-29160	-32710	-26310	-28430	-37320			
12.023	-3.840	-27810	-29330	-29230	-31620	-26130	-28080	-35310	CP4	CP5	CP6
12.024	.177	-26080	-29550	-27260	-31860	-25140	-27600	-31840	-31620	-34340	-68200
12.024	4.250	-26560	-30300	-27230	-34840	-25210	-27950	-31760	-30310	-33000	-59850
12.010	8.307	-25920	-29770	-27130	-34730	-25140	-29070	-29820	-28520	-32870	-58270
	GRADIENT	.00154	.00244	.00247	.00399	.00113	.00232	.00561	-29240	-32080	-61140
									-28820	-33080	-61900
									.00132	.00114	.00161

PARAMETRIC DATA  
-10.000 SPOBRK = 65.000  
16.300 ELVN-L = 4.000  
4.000 MACH = .600

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY52) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	RUDDER =	BOFLAP =	ELVN-R =
-4.050	-3.860	-32320	-35610	-31640	-36950	-31470	-34160	-37090			
-4.043	.186	-32180	-36350	-31710	-37650	-31300	-34840	-36360	CP4	CP5	CP6
-4.048	4.268	-32600	-35170	-32320	-36540	-32770	-33890	-36170	-34540	-37700	-47060
	GRADIENT	.00035	.00054	.00084	.00051	.00074	.00034	.00113	-34720	-37820	-46260
									-34900	-38650	-49640
									.00044	.00117	.00318

PARAMETRIC DATA  
-10.000 SPOBRK = 55.000  
16.300 ELVN-L = 4.000  
4.000 MACH = 1.400

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	RUDDER =	BOFLAP =	ELVN-R =
-0.027	-3.878	-32640	-35760	-32000	-36520	-31500	-34400	-36000			
-0.013	.172	-33110	-35840	-33070	-36630	-31910	-34620	-35820	CP4	CP5	CP6
-0.015	4.247	-33780	-34720	-34130	-36390	-32820	-33930	-36260	-34420	-37320	-47830
	GRADIENT	.00140	.00128	.00262	.00016	.00163	.00058	.00032	-34790	-38320	-47570
									-35550	-39490	-50410
									.00139	.00267	.00318

PARAMETRIC DATA  
-10.000 SPOBRK = 65.000  
16.300 ELVN-L = 4.000  
4.000 MACH = .600

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBYS2) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.400

RUN NO. 302/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.922	-3.876	-36350	-33820	-36590	-33230	-33770	-33910	-36340	-35070	-35870	-47760
7.930	.169	-35790	-32810	-36360	-33140	-32250	-32650	-34430	-33340	-36250	-48310
7.931	4.235	-35950	-32770	-36450	-34210	-32800	-32870	-34340	-33700	-37470	-49040
	GRADIENT	.00049	.00129	.00017	-.00121	.00119	.00128	.00246	.00169	-.00197	-.00158

RUN NO. 303/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.859	-3.866	-35930	-34000	-36950	-33290	-33950	-34750	-37370	-35400	-36120	-47740
11.867	.167	-36500	-33520	-36970	-33450	-33510	-33180	-35070	-34340	-36040	-48270
11.865	4.248	-36520	-34960	-37060	-37200	-33800	-34650	-35430	-34840	-37620	-49360
	GRADIENT	.00050	-.00119	-.00014	-.00483	.00018	.00012	.00238	.00192	-.00185	-.00200

RUN NO. 304/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
15.826	-3.645	-36630	-35590	-36230	-37500	-35270	-37230	-39190	-38030	-36790	-51130
15.841	.165	-35270	-39310	-35350	-40770	-34730	-38270	-38270	-37210	-38500	-51460
15.833	4.274	-36340	-39360	-34950	-41070	-35140	-38090	-37640	-36200	-40260	-52180
	GRADIENT	.00036	-.00303	.00269	-.00438	.00016	-.00105	.00191	.00225	-.00182	-.00130

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.250

RUN NO. 305/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.036	-3.860	-39070	-43320	-39160	-44690	-38020	-41620	-44840	-41120	-45130	-57000
-4.029	.182	-39590	-43860	-39180	-45100	-38950	-42650	-43720	-42290	-46020	-57210
-4.033	4.271	-40180	-42980	-40490	-44660	-39310	-41940	-43450	-42530	-48180	-63040
	GRADIENT	-.00137	.00042	-.00164	.00004	-.00159	-.00039	.00171	-.00173	-.00375	-.00744

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBYS3) ( 12 AUG 75 )

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(OA148) -140A/B/C/R ORBITER

(RE8Y53) ( 12 AUG 75 ) PAGE 269

**REFERENCE DATA**

SREF	=	2690.0000	SO. FT.	XMRP	=	1676.6800	IN.	X0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN.	Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	Z0
SCALE	=	.0300						

## PARAMETRIC DATA

RUDDER =	-10.000	SPOBRK =	55.900
BCFLAP =	16.300	ELVN-L =	-4.000
ELVN-R =	4.000	MACH =	1.250

[illegible]

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

**PAGE 270**

AMES 11-073(OA148) -140A/B/C/R ORBITER

(REBY54) ( 12 AUG 75 )

## REFERENCE DATA

SREF	=	2690.0000	SO.FT.		XMRP	=	1076.6800	IN.	XO
LREF	=	474.8000	IN.		YMRP	=	.0000	IN.	YO
BREF	=	936.6800	IN.		ZMRP	=	375.0000	IN.	ZO
SCALE	=	.0300							

## PARAMETRIC DATA

RUDDER =	-10.000	SPOBRK =	55.000
BOFLAP =	16.300	ELVN-L =	-4.000
ELVN-R =	4.000	MACH =	1.100

ALPHA	BETA	RUN NO.	310/ 0	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.970	-3.853			-39700	-41910	-40360	-43260	-37870	-42010	-43900	-40570	-46140	-67080
3.931	.182			-39510	-42010	-39920	-45270	-38280	-41160	-43730	-41040	-48700	-68060
3.991	4.263			-40590	-42080	-41590	-45380	-39480	-41220	-43360	-42280	-54690	-73400
GRADIENT				-00110	-00021	-00151	-00261	-00199	.00097	.00067	-.00211	-.01054	-.00780

ALPHA	BETA	RUN NO.	311/ 0	PN/L =	3.19	GRADIENT INTERVAL =	-5.00/	5.00	CP4	CP5	CP6
		CP200	CP201	CP204	CP205	CP1	CP2	CP3			
.009	-3.870	-40510	-39380	-41790	-40320	-38220	-40320	-44250	-40430	-43500	-67590
.092	.176	-39170	-35670	-40350	-42080	-37590	-40490	-42580	-40060	-46300	-66750
.026	4.243	-42150	-39820	-43230	-40540	-39090	-39540	-42440	-41620	-50120	-70980
	GRADIENT	-00203	-00030	-00178	-00039	-00107	-00096	-00223	-00147	-00816	-00418

[illegible]

ALPHA	BETA	RUN NO.	313/ 0	RN/L =	3.19	GRADIENT INTERVAL =	-5.00/	5.0	CP5	CP4	CP6
CP200	-4.5600	CP201	-4.1900	CP204	-4.5840	CP1	-4.2190	CP2	-4.3090	-4.4970	-4.2800
CP201	-4.4520	CP202	-4.2600	CP205	-4.1400	CP2	-4.1360	CP3	-4.2000	-4.2630	-4.4660
CP202	-4.5780	CP203	-4.4370	CP206	-4.5670	CP3	-4.2580	CP4	-4.3390	-4.3640	-4.3710
CP203	-4.0022	CP204	-4.00305	CP207	-4.0021	CP4	-4.0046	CP5	-4.0037	-4.0164	-4.0045
CP204	-4.0022	CP205	-4.00305	CP208	-4.0021	CP5	-4.0046	CP6	-4.0037	-4.0164	-4.0045
CP205	-4.0022	CP206	-4.00305	CP209	-4.0021	CP6	-4.0046	CP7	-4.0037	-4.0164	-4.0045
CP206	-4.0022	CP207	-4.00305	CP210	-4.0021	CP7	-4.0046	CP8	-4.0037	-4.0164	-4.0045
CP207	-4.0022	CP208	-4.00305	CP211	-4.0021	CP8	-4.0046	CP9	-4.0037	-4.0164	-4.0045
CP208	-4.0022	CP209	-4.00305	CP212	-4.0021	CP9	-4.0046	CP10	-4.0037	-4.0164	-4.0045
CP209	-4.0022	CP210	-4.00305	CP213	-4.0021	CP10	-4.0046	CP11	-4.0037	-4.0164	-4.0045
CP210	-4.0022	CP211	-4.00305	CP214	-4.0021	CP11	-4.0046	CP12	-4.0037	-4.0164	-4.0045
CP211	-4.0022	CP212	-4.00305	CP215	-4.0021	CP12	-4.0046	CP13	-4.0037	-4.0164	-4.0045
CP212	-4.0022	CP213	-4.00305	CP216	-4.0021	CP13	-4.0046	CP14	-4.0037	-4.0164	-4.0045
CP213	-4.0022	CP214	-4.00305	CP217	-4.0021	CP14	-4.0046	CP15	-4.0037	-4.0164	-4.0045
CP214	-4.0022	CP215	-4.00305	CP218	-4.0021	CP15	-4.0046	CP16	-4.0037	-4.0164	-4.0045
CP215	-4.0022	CP216	-4.00305	CP219	-4.0021	CP16	-4.0046	CP17	-4.0037	-4.0164	-4.0045
CP216	-4.0022	CP217	-4.00305	CP220	-4.0021	CP17	-4.0046	CP18	-4.0037	-4.0164	-4.0045
CP217	-4.0022	CP218	-4.00305	CP221	-4.0021	CP18	-4.0046	CP19	-4.0037	-4.0164	-4.0045
CP218	-4.0022	CP219	-4.00305	CP222	-4.0021	CP19	-4.0046	CP20	-4.0037	-4.0164	-4.0045
CP219	-4.0022	CP220	-4.00305	CP223	-4.0021	CP20	-4.0046	CP21	-4.0037	-4.0164	-4.0045
CP220	-4.0022	CP221	-4.00305	CP224	-4.0021	CP21	-4.0046	CP22	-4.0037	-4.0164	-4.0045
CP221	-4.0022	CP222	-4.00305	CP225	-4.0021	CP22	-4.0046	CP23	-4.0037	-4.0164	-4.0045
CP222	-4.0022	CP223	-4.00305	CP226	-4.0021	CP23	-4.0046	CP24	-4.0037	-4.0164	-4.0045
CP223	-4.0022	CP224	-4.00305	CP227	-4.0021	CP24	-4.0046	CP25	-4.0037	-4.0164	-4.0045
CP224	-4.0022	CP225	-4.00305	CP228	-4.0021	CP25	-4.0046	CP26	-4.0037	-4.0164	-4.0045
CP225	-4.0022	CP226	-4.00305	CP229	-4.0021	CP26	-4.0046	CP27	-4.0037	-4.0164	-4.0045
CP226	-4.0022	CP227	-4.00305	CP230	-4.0021	CP27	-4.0046	CP28	-4.0037	-4.0164	-4.0045
CP227	-4.0022	CP228	-4.00305	CP231	-4.0021	CP28	-4.0046	CP29	-4.0037	-4.0164	-4.0045
CP228	-4.0022	CP229	-4.00305	CP232	-4.00						

LP#A	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.922	-3.854	-46320	-44270	-46770	-45100	-43150	-45220	-48830	-46100	-44680	-65940
.941	.179	-44530	-43470	-45050	-44660	-41770	-42900	-45710	-43250	-44980	-65300
.906	4.239	-47440	-46490	-47790	-46470	-43710	-44630	-45340	-44850	-48500	-65640
	GRADIENT	-00139	-00275	-00127	-00170	-00070	.00072	.00431	.00154	-00472	.00012

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITTER (REBY55) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 YREF = 474.8000 IN. YMRP = .0000 IN. YO  
 ZREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .900

RUN NO. 315/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.936	-3.861	-29850	-32050	-30160	-36830	-30290	-30950	-36090	-32930	-34460	-49810
-3.902	.179	-29770	-33120	-30410	-36170	-30110	-31640	-36430	-33320	-34940	-50490
-3.962	4.262	-30820	-31360	-31880	-33650	-29280	-30360	-34580	-31420	-34060	-59270
	GRADIENT	-00120	.00086	-00212	.00392	.00124	.00073	.00186	.00186	.00050	-01166

RUN NO. 316/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.074	-3.874	-29690	-31120	-30390	-33470	-29890	-30600	-35050	-31990	-33530	-50690
.080	.167	-28650	-29810	-30650	-33930	-28740	-31140	-33060	-31030	-32590	-51220
.067	4.244	-29380	-31750	-31010	-33210	-28310	-29730	-33000	-31290	-33070	-59430
	GRADIENT	-00062	-00078	-00076	.00032	.00194	.00108	.00253	.00086	.00056	-01078

RUN NO. 317/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.946	-3.879	-31350	-29780	-30990	-32620	-29850	-31060	-34230	-31650	-32240	-51020
3.951	.176	-29160	-29760	-30060	-31130	-27540	-29310	-31670	-29990	-32570	-52370
3.956	4.235	-29670	-29740	-30880	-30730	-27450	-28700	-32000	-30090	-32080	-53530
	GRADIENT	.00207	.00005	.00014	.00233	.00297	.00291	.00275	.00192	.00020	-00309

RUN NO. 318/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.893	-3.876	-30950	-29480	-30990	-29790	-29370	-29370	-34280	-31470	-31750	-51610
8.030	.173	-29990	-27440	-29830	-26500	-27640	-27830	-30920	-29130	-32010	-52950
8.015	4.230	-31160	-27770	-30790	-26210	-28330	-26940	-30430	-27670	-30400	-52810
	GRADIENT	-00026	.00211	.00025	.00195	.00079	.00300	.00475	.00469	.00167	-00148

RUN NO. 319/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.973	-3.861	-33330	-30310	-33170	-29360	-30040	-30370	-33580	-31740	-32730	-54500
11.987	.182	-31490	-28410	-31700	-29190	-28530	-28110	-31110	-29100	-31650	-56160
12.005	4.250	-32010	-28600	-32240	-29100	-28870	-27050	-32970	-30000	-31460	-58080
	GRADIENT	.00162	.00211	.00114	.00032	.00144	.00409	.00075	.00214	.00156	-00441

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY56) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = -10.000  
 BDFLAP = 16.300  
 ELVN-R = 4.000  
 SPDBRK = 55.000  
 ELVN-L = -4.000  
 MACH = .600

RUN NO. 320/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.044	-7.862	-24590	-27760	-24380	-31160	-24880	-26610	-34340	-29380	-32230	-60070
-3.971	-3.856	-24820	-27580	-23880	-31220	-24920	-26630	-33380	-29420	-31950	-60940
-3.944	.179	-24170	-28160	-24760	-31730	-25250	-27500	-33450	-28300	-31320	-62870
-3.952	4.259	-24410	-27410	-25590	-30980	-24990	-27410	-31740	-27990	-30990	-68680
-3.967	8.330	-25860	-26520	-26850	-30580	-25860	-26380	-31630	-27950	-30690	-68000
	GRADIENT	.00050	.00021	-.00211	.00030	-.00008	-.00096	.00202	.00176	.00118	-.00555

RUN NO. 321/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-.092	-7.901	-25390	-27740	-24980	-31170	-25110	-27010	-35150	-29400	-32150	-64780
.093	-3.873	-24350	-28020	-25290	-30160	-24930	-26910	-33520	-28940	-31630	-61150
.095	.179	-24930	-27540	-26200	-30550	-24590	-27110	-32200	-27930	-29980	-64200
.092	4.242	-24770	-27920	-25680	-31130	-25100	-26710	-30990	-26900	-30640	-66510
.089	8.298	-26970	-26950	-27920	-29280	-26560	-26800	-31850	-27900	-30470	-65670
	GRADIENT	-.00052	.00012	-.00048	-.00120	-.00021	.00025	.00312	.00251	.00122	-.00661

RUN NO. 322/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.036	-7.914	-25920	-28970	-25850	-31540	-23710	-28200	-34450	-28760	-31150	-67180
4.041	-3.873	-25440	-28040	-26220	-30880	-25220	-27780	-32940	-28670	-29530	-62620
4.036	.178	-24650	-25520	-25520	-28450	-24720	-26600	-30950	-26830	-28730	-61260
3.977	4.232	-26640	-26550	-26920	-28410	-25410	-26210	-31680	-27500	-29230	-58910
4.011	8.279	-28200	-25080	-29730	-26480	-26090	-25230	-30030	-26230	-28150	-61920
	GRADIENT	-.00148	.00184	-.00086	.00305	-.00023	.00194	.00155	.00144	.00049	.00458

RUN NO. 323/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
8.034	-7.903	-26360	-29500	-26830	-33070	-25690	-29250	-34660	-30250	-29670	-56100
8.017	-3.872	-26280	-27630	-26890	-30530	-25150	-27660	-32770	-28740	-29910	-60160
7.955	.166	-25830	-25800	-26160	-27030	-24060	-26120	-28950	-25320	-27760	-60680
7.931	4.229	-26710	-24630	-26130	-25480	-23870	-25420	-29290	-25980	-2760	-58190
7.967	8.286	-30380	-25550	-30350	-25700	-26120	-25440	-29500	-27460	-29430	-49040
	GRADIENT	-.00053	.00370	-.00153	.00623	.00158	.00276	.00429	.00340	.00158	.00244



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(REBY56) ( 12 AUG 75 )  
AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 324/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.920	-7.867	-25790	-29000	-27700	-32560	-25160	-28850	-35080	-30580	-30420	-66090
11.942	-3.850	-27400	-26690	-28750	-28870	-24760	-27150	-33270	-27600	-28250	-58790
12.055	.165	-26830	-24340	-26750	-25780	-24250	-24410	-29310	-25770	-28750	-55590
12.053	4.239	-28950	-23820	-28080	-25570	-23420	-24220	-29050	-22410	-27150	-57050
12.101	8.299	-28120	-24110	-28990	-27910	-24840	-23730	-27460	-25070	-30230	-64310
	GRADIENT	-00192	.00354	.00082	.00407	.00166	.00361	.00521	.00642	.00137	.00216

RUDDER = -10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .600

## PARAMETRIC DATA

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY57) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 325/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.026	-3.843	-31840	-34060	-31250	-34960	-31470	-33760	-37420	-35630	-38390	-47700
-3.938	.202	-32400	-33700	-31100	-35340	-32060	-33080	-36700	-35640	-37290	-46500
-4.001	4.282	-33140	-33400	-32690	-34970	-32010	-32680	-35440	-35110	-36550	-48320
	GRADIENT	-00160	.00081	-.00178	-.00001	-.00066	.00133	.00244	.00064	.00337	-.00077

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.400

## PARAMETRIC DATA

RUN NO. 326/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.015	-3.863	-33240	-34570	-33150	-35440	-32230	-33720	-37460	-36060	-38660	-47820
.021	.195	-33440	-34250	-32590	-35690	-32820	-33570	-36320	-35030	-37020	-47040
.016	4.262	-33750	-34760	-33320	-36280	-32320	-33980	-34640	-34550	-36510	-49450
	GRADIENT	-00063	-.00023	-.00021	-.00103	-.00011	-.00020	.00347	.00186	.00265	-.00201

RUN NO. 327/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.900	-3.867	-34310	-35120	-34810	-36090	-32170	-34250	-36190	-34980	-37040	-48440
4.605	.197	-34580	-34790	-34770	-36090	-31510	-33950	-34160	-32810	-34890	-46810
3.907	4.252	-33940	-34640	-34140	-36580	-32050	-34320	-33020	-34110	-35660	-48610
	GRADIENT	.00058	.00059	.00082	-.00073	.00015	-.00009	.00390	.00107	.00170	-.00021

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y57) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.400

RUN NO. 328/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.945	-3.862	-35680	-36980	-35910	-37830	-32900	-35950	-36190	-34600	-37070	-48760
7.917	.187	-35420	-36460	-35610	-37150	-32620	-35650	-35530	-33870	-35840	-47270
7.848	4.251	-36650	-36860	-37380	-38020	-33600	-36220	-35110	-34560	-36080	-49390
	GRADIENT	-0.0120	.00015	-0.0191	-0.00024	-0.00086	-0.00033	.00133	.00005	.00122	-0.00078

RUN NO. 329/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.907	-3.847	-35370	-37810	-34090	-39160	-34190	-36620	-38040	-36180	-38160	-49920
11.890	.186	-36630	-38100	-36920	-38450	-33660	-37180	-36490	-35810	-36820	-48040
11.884	4.265	-37790	-37500	-37980	-38400	-34590	-36830	-36360	-33790	-36130	-48570
	GRADIENT	-0.00298	.00038	-0.00479	.00094	-0.00050	-0.00026	.00207	.00295	.00250	.00166

RUN NO. 330/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
15.871	-3.822	-35720	-38020	-33770	-40150	-34810	-37690	-38210	-37340	-38900	-51630
15.883	.187	-36970	-40120	-35050	-42040	-35280	-38830	-38500	-37650	-38620	-50140
15.915	4.292	-36600	-40030	-34920	-42070	-35680	-38900	-38500	-36100	-39420	-55090
	GRADIENT	-0.00132	-0.00247	-0.00141	-0.00236	-0.00107	-0.00149	-0.00036	.00154	-0.00065	-0.00430

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.250

RUN NO. 331/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.015	-3.834	-35800	-37110	-35380	-38570	-35110	-36630	-41920	-39270	-44380	-59480
-4.012	.232	-35320	-36240	-35290	-38010	-34230	-35780	-39230	-37620	-40480	-54420
-4.007	4.280	-36560	-36870	-35920	-39520	-35070	-39450	-38450	-37460	-40150	-56000
	GRADIENT	-0.00094	.00029	-0.00190	-0.00118	.00005	.00087	.00427	.00223	.00521	.00427

AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y58) ( 12 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

ORCE DATA - OA148 ( AMES 11-073-1 )  
AMES 11-073(OA148) -140A/B/C/R ORBITER

(REBY58) ( 12 AUG 75 ) PAGE 275

## REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1075.6800	IN.	X0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN.	Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	Z0
SCALE	=	.0300						

RUDDER =	10.000	SPOBRK =	55.000
BDFLAP =	16.300	ELVN-L =	4.000
ELVN-R =	-4.000	MACH =	1.250

## PARAMETRIC DATA

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
0.35	-3.858	-37200	-38290	-36990	-39170	-35500	-37480	-40930	-39420	-43240	-60610
0.40	.189	-36140	-37740	-35970	-39160	-34540	-37320	-38570	-36780	-39420	-55370
0.37	4.261	-37250	-37460	-37460	-39660	-35370	-37260	-38330	-37690	-39720	-57990
	GRADIENT	-0.0006	.00102	-0.00058	-0.00060	.00016	.00025	.00320	.00219	.00433	-0.0322

ALPHA	BETA	RUN NO.	333/ 0	RN/L =	3.01	GRADIENT INTERVAL =	-5.00/	5.00	CP4	CP5	CP6
3.928	-3.861	CP200	CP201	CP204	CP205	CP1	CP2	CP3			
3.929	.192	-38480	-39570	-39270	-40540	-35930	-38340	-39520	-38790	-4082C	-57570
3.933	4.251	-39410	-40190	-40140	-42010	-36100	-39390	-39170	-37120	-39650	-56900
	GRADIENT	-38130	-39220	-38530	-41040	-35820	-38900	-38310	-36390	-39750	-60530
		.00043	.00043	.00091	-.00052	.00014	-.00059	.00149	.00256	.00132	-.00365

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.966	-3.855	-4.0750	-4.1870	-4.1270	-4.3190	-3.37550	-4.1140	-4.1140	-39230	-41260	-56230
7.970	.187	-4.0580	-4.1670	-4.1650	-4.3140	-3.7150	-4.0770	-4.0620	-39890	-56730	-56730
7.894	4.250	-4.1210	-4.1800	-4.1800	-4.3080	-3.7730	-4.0900	-4.0290	-38180	-40330	-61380
	GRADIENT	-0.0057	.00009	-0.0065	.00014	-0.0022	.00030	.00105	.00130	.00115	-0.00636

ALPHA	BETA	RUN NO.	335/ 0	RN/L =	3. 01	GRADIENT INTERVAL =	-5. 00/	5. 00	CP4	CP5	CP6
11.923	-3.838	CP200	CP201	CP204	CP205	CP1	CP2	CP3	-4.0620	-4.2080	-5.4360
11.931	.197	-4.2820	-4.3270	-4.3650	-4.5660	-38750	-4.2300	-4.2200	-39830	-4.1140	-5.7540
11.925	4.259	-4.2070	-4.2550	-4.1860	-4.5040	-38390	-4.1610	-4.1660	-37960	-4.0850	-6.3280
	GRADIENT	-4.0360	-4.2280	-4.2070	-4.5320	-38150	-4.1750	-4.0760	-37960	-4.0850	-6.3280
		.00304	.00122	.00195	.00042	.00074	.00068	.00178	.00329	.00152	-0.1102

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(RE8Y59) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.100

RUN NO. 336/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
-4.026	-3.831	-4.0820	-4.2570	-4.1170	-4.4350
-3.834	.203	-3.9900	-4.0680	-4.0420	-4.2710
-4.013	4.281	-4.0160	-4.1800	-4.0900	-4.5020
	GRADIENT	.00081	.00094	.00033	.00083
					.00054
					.00267
					.00389
					.00346
					.00900
					.00640

RUN NO. 337/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
.051	-3.852	-4.1890	-4.3430	-4.2980	-4.4570
.053	.191	-3.9370	-4.1580	-4.0160	-4.3710
.049	4.255	-4.0010	-4.1690	-4.0460	-4.3800
	GRADIENT	.00232	.00214	.00310	.00017
					.00350
					.00085
					.00142
					.00319
					.00716
					.00548

RUN NO. 338/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
3.965	-3.853	-4.2830	-4.3690	-4.2930	-4.5130
3.964	.193	-4.2520	-4.4320	-4.4150	-4.6520
3.966	4.249	-4.2270	-4.4280	-4.3200	-4.4970
	GRADIENT	.00069	.00073	.00027	.00020
					.00057
					.00148
					.00142
					.00363
					.00497
					.00310

RUN NO. 339/ 0		RN/L = 3.18		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
7.908	-3.848	-4.5440	-4.5860	-4.5030	-4.7760
7.912	.189	-4.3530	-4.4780	-4.3880	-4.7320
7.911	4.247	-4.5160	-4.6710	-4.6990	-4.8620
	GRADIENT	.00034	.00105	.00243	.00106
					.00024
					.00125
					.00216
					.00546
					.00354
					.00394

RUN NO. 340/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
11.969	-3.832	-4.8560	-4.8000	-4.7710	-5.2220
11.872	.197	-4.4240	-4.5280	-4.4430	-4.9340
11.865	4.258	-4.5640	-4.7130	-4.5950	-5.0120
	GRADIENT	.00360	.00107	.00217	.00259
					.00153
					.00038
					.00249
					.00442
					.00147
					.00487

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY60) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1.76.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = .900

RUN NO. 341/ 0 RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.026	-3.841	-30510	-31260	-29680	-34460	-30270	-30530	-36160	-32160	-34740	-55990
-4.026	.202	-31230	-30450	-32860	-34030	-29940	-30420	-35840	-32190	-34770	-49440
-3.984	4.285	-30790	-30840	-31600	-34080	-29560	-30370	-35210	-30840	-34640	-51140
	GRADIENT	-0.0034	.00051	-0.00235	.00047	.00087	.00020	.00117	.00163	.00012	.00595

RUN NO. 342/ 0 RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.056	-3.856	-30090	-31790	-29510	-34150	-29560	-30310	-35160	-31710	-32510	-55920
-0.056	.186	-30620	-30740	-30100	-32470	-28340	-29880	-34520	-30780	-33710	-50490
-0.048	4.260	-29350	-31570	-30560	-33920	-28780	-31170	-34100	-30980	-32800	-51140
	GRADIENT	-0.0091	.00027	-0.00117	.00028	.00096	.00032	.00131	.00090	-0.00035	.00576

RUN NO. 343/ 0 RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.975	-3.851	-29390	-31240	-29570	-33110	-28120	-30790	-33220	-29560	-31240	-51620
4.019	.193	-28620	-29260	-29020	-32310	-27360	-29650	-32210	-28900	-31710	-49860
3.944	4.252	-28490	-31260	-29230	-34030	-28130	-31400	-32390	-28980	-31320	-49260
	GRADIENT	.00111	-0.00003	.00054	-0.00113	-0.00001	-0.00075	.00102	.00071	-0.00010	.00291

RUN NO. 344/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
8.020	-3.857	-28440	-30500	-29440	-31970	-27100	-29980	-32850	-30310	-29460	-52400
8.028	.194	-28440	-29750	-29460	-31980	-26340	-28640	-32100	-28430	-31100	-49660
8.024	4.248	-28780	-31000	-29370	-32730	-27450	-29840	-32230	-28920	-31360	-50040
	GRADIENT	-0.0042	-0.00062	.00009	-0.00094	-0.00043	.00017	.00076	.00134	-0.00237	.00291

RUN NO. 345/ 0 RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.919	-3.839	-29760	-31660	-30620	-32610	-27360	-30480	-34130	-31830	-32050	-56780
11.929	.180	-28470	-29370	-28590	-31930	-27140	-29430	-31160	-28970	-32630	-54040
11.915	4.268	-31650	-32480	-33450	-33650	-25510	-32730	-32730	-29570	-32020	-53560
	GRADIENT	-0.0261	-0.0103	-0.00351	-0.00130	-0.00256	-0.00221	.00171	.00401	.00059	.00347

AMES 11-073(0A148) - 140A/B/C/R ORBITER

(REFV61) ( 12 AUG 75 )

## REFERENCE DATA

SREF	=	2690.0000	50.FT.	XMRP	=	1076.6800	IN.	X0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN.	Y0
8REF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	Z0
SCALE	=	.0300						

## PARAMETRIC DATA

RUDDER =	10.000	SPDSFK =	55.000
BOFLAP =	16.300	LVN-L =	4.000
ELVN-R =	-4.000	NACH =	.600

RUN NO. 346/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	C-1	CP2	CP3	CP4	CP5	CP6
-4.014	-7.854	-2520	-2640	-24510	-3240	-25190	-27420	-33780	-3120	-3190	-63600
-3.993	-3.832	-2520	-2640	-25520	-32330	-24950	-27040	-34380	-29140	-30640	-62170
-3.980	.201	-25410	-26220	-24980	-31480	-25680	-27250	-33390	-29110	-32400	-57650
-3.988	4.282	-25630	-26210	-24260	-31210	-25900	-26900	-34930	-26330	-31880	-58680
-4.005	8.352	-24370	-28100	-25100	-31090	-24770	-26690	-29750	-26570	-31920	-62570
GRADIENT		.00195	.00053	.00155	.00138	.00069	.00030	.00337	.00220	.00125	.00431

RUN NO. 347/ 0 R/L = 4.65 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CPE
.015	-7.895	-25120	-28280	-24560	-31920	-25560	-27990	-34710	-29580	-31200	-52420
.022	-3.051	-25410	-28590	-24600	-31130	-24600	-27510	-32460	-29200	-30700	-51870
.105	.189	-24720	-27410	-24820	-30360	-24900	-26900	-31560	-28520	-31450	-50930
.100	4.264	-24780	-26400	-24190	-31260	-24180	-27370	-31200	-28300	-31500	-50860
.094	8.317	-24930	-26340	-25180	-31970	-25180	-27450	-31500	-28620	-31600	-50890
	GRADIENT	.00377	.00369	.00080	.00016	.00052	.00017	.00212	.00091	.00129	.00120

RUN NO. 348/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
GRADIENT	8.253	0.0058	0.0058	0.0058	0.0058	0.0083	0.0026	0.0025	0.0029	0.0015	0.0025	0.0019
0.047	4.254	2.600	2.600	2.877	2.618	3.100	2.532	2.750	3.170	2.660	3.330	3.330
0.044	4.195	2.600	2.600	2.751	2.600	2.980	2.410	2.700	2.910	2.570	3.330	3.330
0.036	3.849	2.519	2.519	2.877	2.610	3.090	2.530	2.730	3.250	2.720	3.330	3.330
0.024	7.901	26.140	26.140	26.220	27.210	30.920	24.910	288.0	3360	294.00	20210	1035.0

RUN NO. 349/ 0 RUN/L = 4.85 GRADIENT INTERVAL = -5.30/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
8.028	-7.837	-26753	-30310	-28590	-31230	-24690	-28600	-34570	-29660	-35530	-44930
8.017	-7.847	-25340	-27820	-25550	-30110	-23910	-27010	-31100	-24440	-27910	-34960
7.993	-7.857	-24500	-26360	-25000	-27620	-24070	-25910	-29350	-24320	-27620	-3510
7.955	-7.851	-23610	-25470	-25420	-26510	-25560	-27330	-31310	-26550	-31310	-3600
7.935	-7.835	-26630	-27430	-26820	-32150	-26110	-27350	-30090	-28220	-30130	-37610
	GRADIENT	-00033	00048	-00065	-00058	-00157	-00040	-00026	-00310	-00435	-00042

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( FEBY61 ) ( 12 AUG 75 )  
AMES 11-073(0A148) -140A/B/C/R ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOSRK = 55.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = .500

RUN NO. 350/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.943	-7.653	-25740	-28640	-27740	-30270	-23550	-28530	-33540	-29730	-23650	-60630
11.952	-3.827	-25720	-27130	-26100	-29190	-23710	-27550	-33090	-27650	-26550	-56210
11.957	.197	-24790	-26630	-25810	-27930	-23450	-26730	-33300	-27550	-26320	-55750
11.953	4.259	-25510	-27290	-26420	-29710	-23450	-26290	-33550	-24700	-26010	-56720
11.951	8.316	-25310	-27180	-26580	-29530	-24830	-26550	-31160	-26210	-31160	-56170
	GRADIENT	.00013	-0.0020	-0.0040	-0.0065	.00032	.00156	.00301	.00269	-.00265	-.00063

AMES 11-073(0A148) -140A/B/C/R ORBITER

( FEBY62 ) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPOSRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = 1.400

RUN NO. 351/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.059	-3.849	-33440	-36280	-32260	-37340	-32380	-34720	-37540	-35200	-37440	-47350
-3.922	.195	-33010	-35950	-31230	-37040	-32090	-34640	-35150	-35110	-35910	-45890
-3.933	4.280	-33500	-36010	-32550	-36930	-32430	-34510	-35410	-35830	-36420	-45610
	GRADIENT	-0.0008	.00033	-0.00036	.00048	-0.0006	.00026	.00262	.00021	.00125	-.00144

RUN NO. 352/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.024	-3.867	-33380	-36530	-32600	-37690	-32390	-35300	-3720	-35320	-37950	-47600
.029	.185	-33920	-36650	-32970	-37720	-32970	-35360	-36450	-35760	-37760	-46460
.025	4.257	-34770	-36160	-34130	-37420	-33150	-35000	-35540	-35760	-37590	-49780
	GRADIENT	-0.00171	.00052	-0.00188	.00033	-0.00020	.00037	.00268	.00017	.00044	-.00269

RUN NO. 353/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.958	-3.867	-33350	-36130	-32650	-37050	-32480	-35130	-36740	-35410	-37540	-48770
3.958	.187	-33630	-36380	-33240	-36850	-32330	-34670	-35390	-34430	-36400	-47300
3.953	4.245	-34690	-36310	-34670	-36710	-33030	-34280	-34380	-35230	-36270	-49040
	GRADIENT	-0.00164	.00101	-0.00249	.00042	-0.00068	.00105	.00291	.00022	.00157	-.00033

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORBITER

RESERVED ( 12 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPOCK = 55.000  
 BOFLAP = 16.300 ELEV-L = -4.000  
 ELVR-R = -4.000 WACH = 1.400

RUN NO. 354/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP5	CP6
7.927	-3.866	-34440	-36920	-33680	-38090	-33740	-35050	-33420	-35420	-46990
7.932	.179	-34280	-36920	-33550	-37190	-32800	-34950	-33460	-35090	-47500
7.933	4.245	-34970	-36350	-34130	-38160	-33760	-35420	-33690	-36490	-49750
	GRADIENT	-30053	.00107	-30056	-30010	-30003	.00077	.00039	.00239	.00029

RUN NO. 355/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP5	CP6
11.912	-3.854	-35000	-37240	-35680	-39450	-34020	-35940	-33920	-37470	-50240
11.921	.184	-34300	-37320	-34300	-37650	-33180	-35920	-33920	-37770	-50790
11.919	4.259	-35160	-36370	-34400	-38710	-34340	-37750	-33920	-38390	-53020
	GRADIENT	-30027	-30035	.00105	-30025	-30040	.00073	.00117	.00041	.00144

RUN NO. 356/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP5	CP6
15.912	-3.830	-37550	-37420	-34080	-37030	-35750	-37470	-33750	-37350	-51310
15.924	.184	-38110	-37330	-35150	-41330	-35720	-38070	-36630	-38320	-53810
15.916	4.289	-37420	-37120	-34930	-42130	-36020	-38920	-36400	-39420	-54720
	GRADIENT	-30057	-30053	.00139	-30027	-30033	-30169	.00043	.00122	.00339

AMES 11-07310A148) -140A/B/C/R ORBITER

RESERVED ( 12 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPOCK = 55.000  
 BOFLAP = 16.300 ELEV-L = -4.000  
 ELVR-R = -4.000 WACH = 1.400

RUN NO. 357/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP5	CP6
17.930	-3.840	-36120	-39800	-35050	-40980	-35650	-39040	-43010	-39320	-48080
17.916	.196	-36630	-39140	-34500	-40230	-35060	-38140	-40510	-38380	-49410
17.923	4.275	-36950	-37840	-35680	-39120	-35540	-37000	-39370	-38370	-52000
	GRADIENT	-30069	.00242	-30020	.00229	.00015	.00251	.00448	.00150	.00221



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY63) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = 1.250

RUN NO. 358/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.044	-3.864	-36950	-40150	-36530	-41550	-35860	-39390	-41140	-39510	-42160	-58500
.050	.180	-36740	-39420	-36000	-40790	-35900	-38670	-40450	-38620	-40350	-54550
.046	4.255	-38670	-38130	-38700	-38930	-36120	-37710	-39050	-38820	-41000	-58760
	GRADIENT	-00212	00249	-00268	00323	-00032	00207	00257	00085	00142	-00033

RUN NO. 359/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.990	-3.864	-37150	-39540	-36840	-40680	-36390	-39430	-40660	-39470	-40800	-57890
3.991	.185	-37880	-39920	-37050	-40990	-36240	-38890	-40150	-39490	-39940	-54820
3.994	4.245	-39280	-39470	-39450	-39400	-36890	-38010	-38550	-38880	-39370	-61490
	GRADIENT	-00263	00132	-00322	00158	-00062	00175	00260	00073	00102	-00444

RUN NO. 360/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.968	-3.853	-38490	-41270	-37730	-42360	-37340	-40750	-42650	-40820	-41770	-56940
7.973	.179	-39000	-41260	-38200	-42260	-37740	-40300	-41580	-39570	-40610	-55020
7.897	4.244	-40420	-40990	-40460	-42310	-38770	-40480	-40620	-40110	-41140	-62430
	GRADIENT	-00239	00035	-00337	00006	-00176	00033	00250	00050	00078	-00691

RUN NO. 361/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.969	-3.850	-39360	-41300	-39550	-42710	-37840	-40730	-42990	-41750	-42250	-56060
11.877	.185	-38750	-41460	-38680	-43290	-37840	-40440	-42270	-41110	-41750	-55320
11.890	4.256	-40070	-42880	-39950	-44850	-38560	-42350	-42420	-40760	-41970	-63980
	GRADIENT	-00068	-00195	-00050	-00264	-00089	-00200	00070	00122	00034	-00979

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY64) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = 1.100

RUN NO. 362/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00		RUN NO. 363/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00		RUN NO. 364/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00		RUN NO. 365/ 0		RN/L = 3.20		GRADIENT INTERVAL = -5.00/ 5.00		RUN NO. 366/ 0		RN/L = 3.20		GRADIENT INTERVAL = -5.00/ 5.00							
ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6	ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6	ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.951	-3.840	-4.0180	-4.2340	-4.0540	-4.3450	-38770	-4.2290	-4.7210	-4.3780	-50620	-69430	-3.959	-3.853	-4.0460	-4.2600	-4.0630	-4.3120	-38900	-4.2120	-4.6340	-4.3300	-4.6670	-68410	-3.977	-3.859	-4.0510	-4.2690	-4.0700	-4.3200	-39000	-4.2020	-4.5720	-4.3020	-4.4590	-67370
-3.948	.196	-3.96780	-4.0250	-3.9010	-4.2080	-37990	-4.0470	-4.3610	-4.1570	-44580	-64540	-4.021	.183	-3.9370	-4.0700	-3.9610	-4.2830	-38200	-4.1020	-4.3750	-4.1730	-4.5300	-62380	-4.021	.178	-3.9400	-4.0950	-4.0850	-4.4230	-39800	-4.2710	-4.5220	-4.3040	-4.5380	-60380
-3.942	4.273	-4.1410	-3.9730	-4.2220	-4.2080	-37680	-3.8970	-4.3290	-4.1240	-44580	-67860	-4.024	4.263	-4.2090	-3.9810	-4.2970	-3.9570	-3.9580	-3.8680	-4.3290	-4.1210	-4.3650	-67920	-4.024	4.243	-4.3500	-3.9920	-4.3210	-4.0360	-4.0390	-4.3860	-4.2230	-4.2370	-63890	
GRADIENT	GRADIENT	.00152	.00321	.00208	.00339	.00011	.00409	.00563	.00313	.00731	.00069	GRADIENT	GRADIENT	.00201	.00467	.00229	.00438	.00084	.00424	.00376	.00257	.00372	.00059	GRADIENT	GRADIENT	.00248	.00333	.00236	.00341	.00075	.00214	.00230	.00098	.00274	.00428
RUN NO. 367/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00		RUN NO. 368/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00		RUN NO. 369/ 0		RN/L = 3.19		GRADIENT INTERVAL = -5.00/ 5.00		RUN NO. 370/ 0		RN/L = 3.20		GRADIENT INTERVAL = -5.00/ 5.00		RUN NO. 371/ 0		RN/L = 3.20		GRADIENT INTERVAL = -5.00/ 5.00							
ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6	ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6	ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.919	-3.844	-4.4550	-4.6680	-4.4620	-4.8080	-42200	-4.6390	-4.7950	-4.6720	-45980	-69760	11.930	.169	-4.4500	-4.5340	-4.2870	-4.6580	-4.0380	-4.4850	-4.5640	-4.4490	-4.5940	-65760	11.925	.169	-4.4600	-4.5340	-4.2970	-4.6680	-4.0480	-4.4950	-4.5740	-4.4590	-65760	
GRADIENT	GRADIENT	.00229	.00169	.00315	.00023	.00210	.00123	.00023	.00112	.00021	.00469	GRADIENT	GRADIENT	.00229	.00169	.00315	.00023	.00210	.00123	.00023	.00112	.00021	.00469	GRADIENT	GRADIENT	.00229	.00169	.00315	.00023	.00210	.00123	.00023	.00112	.00021	.00469



AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY66) ( 12 AUG 75 )

## REFERENCE DATA

=	SREF	=	2690.0000	SQ.FT.	=	XMRP	=	1076.6800	IN.	XO
=	LRFP	=	474.8000	IN.	=	YMRP	=	.0000	IN.	YO
=	BRFP	=	936.6800	IN.	=	ZMRP	=	375.0000	IN.	ZO
=	SCALE	=	.0300							

RUDDER  
BDFLAP  
ELVN-R

5.000	SPDRBK	=	55.000
16.300	ELVN-L	=	-4.000
-4.000	MACH	=	.600

## PARAMETRIC DATA

RUN NO.	372/ 0	RN/L =	4.80	GRADIENT INTERVAL =	-5.00/ 5.00
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ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.037	-7.846	-26010	-29640	-25300	-32190	-26250	-29460	-34780	-29280	-31760	-64900
-3.893	-3.843	-25280	-29330	-24610	-32190	-25710	-28300	-34610	-29320	-30290	-63180
-3.894	.194	-24670	-28320	-23910	-31910	-25410	-27700	-33720	-28790	-31410	-57680
-3.902	4.271	-24850	-27580	-24440	-30160	-25180	-26800	-31840	-27200	-32010	-60170
-3.917	8.333	-26420	-26140	-27040	-27910	-25200	-25600	-30230	-26350	-30200	-65600
	GRADIENT	.00053	.00216	.00021	.00250	.00065	.00185	.00342	.00261	.00212	.00369

RUN NO.	373/ 0	RN/L = 4.81	GRADIENT INTERVAL = -5.00/ 5.00
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ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
0.66	-7.986	-26710	-29350	-26830	-32860	-25230	-29490	-34380	-29070	-30590	-65610
0.75	-3.882	-25530	-28350	-24820	-31720	-25290	-27970	-34070	-29390	-30580	-62020
0.76	1.175	-25170	-27970	-25920	-31040	-25270	-26940	-32100	-27110	-30880	-58530
0.73	4.250	-25520	-27700	-25290	-30570	-25610	-27520	-32450	-27000	-30370	-62200
0.63	8.308	-26240	-26350	-28410	-26390	-25540	-26390	-32230	-27020	-30570	-65710
	GRADIENT	0.0021	0.0155	-0.0058	0.0142	-0.0040	0.0055	0.0199	0.0258	-0.0110	-0.0024

RUN NO.	374/ 0	RN/L =	4.80	GRADIENT	INTERVAL =	-5.00/	5.00
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ALPHA	BETA	CP200	CF201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.021	-7.1899	-28070	-30650	-28970	-32500	-25620	-28960	-34310	-29340	-29720	-63090
4.024	-3.864	-26130	-23310	-26420	-32300	-25310	-28880	-33710	-29330	-28130	-56790
4.022	1.186	-25560	-27030	-25910	-29000	-24690	-27510	-31020	-26200	-29490	-57990
4.025	4.244	-27240	-26930	-27550	-29610	-25250	-26590	-31900	-27550	-29600	-60130
4.03:	8.254	-29140	-26060	-27870	-26790	-26060	-25750	-30720	-25540	-29310	-63800
GRADIENT	-0.0146	-00196	-00293	-00139	-00332	-00007	-00282	-00223	-00219	-00181	-00413

RUN NO.	375/ 0	RN/L = 4.80	GRADIENT INTERVAL = -5.00/ 5.00
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	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
ALPHA											
1	-7.699	-28.193	-30.130	-29.070	-31.940	-25.170	-29.190	-34.590	-29.590	-28.460	-48930
2	-3.693	-26.590	-26.590	-26.660	-30.650	-24.640	-28.500	-32.690	-27.270	-28.780	-55850
3	-1.751	-24.030	-25.760	-24.430	-28.250	-23.390	-26.080	-29.820	-25.230	-26.880	-57170
4	-7.932	-27.240	-24.650	-28.120	-27.590	-24.510	-25.240	-30.230	-26.860	-30.490	-60300
5	-7.983	-26.630	-24.700	-30.680	-25.720	-26.590	-25.410	-29.020	-26.660	-29.230	-53690
GRACIENT	-00.124	-00.124	-00.486	-00.156	-00.378	-00.016	-00.402	-00.303	-00.050	-00.212	-00.549

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBYC6) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 376/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
12.002	-7.846	-28160	-29820	-27870	-31480	-24270	-28930	-34190	-29380	-29920	-63830
12.020	-3.839	-24910	-27550	-26020	-29850	-23330	-27950	-34180	-27340	-25780	-57070
11.993	.186	-24040	-25530	-24940	-28100	-22450	-25630	-29120	-25160	-27570	-56150
11.930	4.247	-27010	-24110	-27770	-26180	-23900	-23880	-29400	-23120	-26980	-56190
11.973	8.307	-28420	-23740	-29530	-26450	-24740	-24190	-27560	-24660	-30620	-69270
	GRADIENT	-20260	.00425	-.00217	.00454	-.00071	.00503	.00590	.00522	-.00136	.00109

RUDDER = 5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

## PARAMETRIC DATA

AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY67) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 377/ 0 RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.954	-3.849	-32590	-34270	-32660	-36070	-30770	-33330	-38160	-34180	-35740	-50990
-3.952	.192	-32730	-33270	-32580	-36630	-31290	-33670	-36340	-33720	-34380	-48830
-3.959	4.272	-32840	-33080	-33270	-36340	-31470	-33780	-36310	-32110	-36240	-52120
	GRADIENT	-.00031	.00145	-.00075	-.00033	-.00086	-.00055	.00227	.00255	-.00062	-.00140

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

## PARAMETRIC DATA

RUN NO. 378/ 0 RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.049	-3.871	-32570	-33520	-33140	-36340	-31240	-34030	-37010	-33390	-34780	-53340
.052	.177	-32660	-32820	-32910	-33550	-31070	-32540	-35760	-33270	-35000	-50340
.052	4.253	-32990	-32350	-33480	-34880	-32030	-32030	-35010	-32360	-35740	-53370
	GRADIENT	-.00039	.00144	-.00042	.00179	.00124	.00246	.00246	.00127	-.00118	-.00005

RUN NO. 379/ 0 RN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.019	-3.877	-32460	-33410	-33270	-35920	-30380	-33500	-35980	-31980	-33590	-51880
4.018	.181	-31670	-32500	-32020	-34860	-30190	-32560	-35060	-31530	-34570	-50700
4.022	4.243	-32620	-31400	-33170	-32600	-30270	-31710	-34620	-32090	-33530	-51720
	GRADIENT	-.00027	.00248	.00012	.00409	.00014	.00220	.00167	-.00014	.00037	.00020

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-07310A148) -140A/B/C/R ORBITER

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(REBY67) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

RUN NO. 380/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.985	-3.850	-32360	-33190	-32880	-34800	-30550	-32420	-37320	-33180	-32890	-53240
7.993	.182	-32200	-31820	-31730	-34210	-29940	-32060	-35470	-31000	-34140	-50860
7.992	4.242	-33180	-31470	-33740	-32180	-29620	-30990	-33850	-28980	-33730	-53470
	GRADIENT	-00101	.00212	-00106	.00324	.00115	.00177	.00428	.00518	-00104	-00029

RUN NO. 381/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.953	-3.856	-32090	-33600	-32780	-36440	-30070	-33000	-37680	-34060	-34350	-56960
11.963	.189	-30240	-32160	-31290	-33920	-29500	-32130	-35730	-31920	-34730	-53360
11.953	4.261	-32460	-30850	-33220	-33340	-29150	-31880	-35730	-30350	-33940	-57070
	GRADIENT	-00046	.00339	-00055	.00382	.00113	.00138	.00240	.00457	.00351	-00015

AMES 11-07310A148) -140A/B/C/R ORBITER

(REBY68) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

RUN NO. 382/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.934	-7.845	-29330	-30650	-28980	-34310	-28200	-31500	-37190	-31290	-33230	-65060
-3.918	-3.844	-29210	-31570	-26630	-34240	-27930	-30700	-36850	-31240	-33050	-61780
-3.895	.193	-28480	-30850	-27180	-33780	-28800	-30730	-34290	-30800	-33120	-58780
-3.903	4.270	-29320	-30970	-28560	-32560	-28230	-30600	-34710	-29730	-34280	-63380
-3.915	8.339	-29510	-28520	-30080	-30180	-28260	-28940	-31750	-28470	-32710	-67440
	GRADIENT	-00014	.00074	-00238	.00207	-00037	.00012	.00263	.00186	-00152	-00199

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORBITER

(REBY68) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

RUN NO. 383/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.067	-7.888	-30680	-30940	-29330	-34250	-28280	-31730	-37910	-31100	-33070	-68030
.076	-3.860	-29110	-30320	-28480	-33020	-27950	-31010	-35800	-30700	-32390	-63960
.078	.177	-28740	-30260	-28220	-32150	-27980	-30100	-34560	-30070	-33360	-59120
.074	4.252	-28930	-30940	-28360	-32860	-28480	-30950	-33550	-28830	-33230	-65400
.069	8.307	-30370	-29990	-30560	-30940	-28110	-29320	-33230	-27120	-32500	-69150
	GRADIENT	.00016	-0.0077	.00015	.00019	-0.0065	.00007	.00277	.00231	-0.00103	-0.00180

RUN NO. 384/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.022	-7.901	-30590	-31630	-29950	-33640	-28310	-32030	-37670	-31110	-32430	-67210
4.023	-3.862	-29850	-30520	-29910	-34370	-27550	-31390	-36330	-31230	-31650	-61520
4.023	.182	-28980	-29360	-28850	-32030	-26820	-29930	-33950	-28740	-32000	-58000
4.027	4.243	-30120	-30360	-30050	-30950	-28320	-30140	-33970	-29250	-32350	-62610
4.033	8.290	-31260	-28760	-32800	-29240	-27790	-29270	-31770	-26830	-31560	-67540
	GRADIENT	-0.0032	.00020	-0.00017	.00422	-0.0095	.00154	.00291	.00244	-0.00086	-0.00135

RUN NO. 385/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.982	-7.890	-30680	-32110	-31290	-34560	-27950	-31820	-36820	-32010	-31520	-56340
7.993	-3.860	-29170	-30070	-29310	-33510	-27300	-30970	-36740	-30500	-31410	-60470
7.991	.185	-28250	-28480	-28130	-30090	-26650	-29500	-32330	-27440	-29390	-56200
7.992	4.234	-29850	-28890	-30550	-30200	-28290	-29230	-33060	-28590	-32100	-60780
7.990	8.288	-31690	-27560	-33930	-28970	-27970	-28910	-30850	-27250	-30670	-55470
	GRADIENT	-0.0084	.00147	-0.00153	.00409	-0.0122	.00215	.00455	.00236	-0.00085	-0.00039

RUN NO. 386/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.959	-7.852	-30230	-31830	-30750	-33950	-27180	-31490	-38930	-33310	-32750	-69460
11.978	-3.840	-28390	-30160	-28350	-32470	-26590	-30640	-38950	-30410	-30410	-59070
11.981	.166	-28290	-28840	-28200	-31120	-25380	-28730	-32680	-27660	-30760	-57010
11.977	4.246	-29640	-27520	-31190	-28960	-25640	-26540	-33340	-25420	-29230	-56500
11.969	8.308	-31570	-26400	-33320	-28430	-27000	-28590	-25030	-25800	-33320	-69580
	GRADIENT	-0.0155	.00326	-0.00352	.00434	-0.0130	.00495	.00693	.00744	-0.00146	-0.00057

AMES 11-07310A148) -140A/B/C ORBITER

(REBY69) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .900

RUN NO. 387/ 0 RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.989	-3.851	-32750	-33670	-32530	-35730	-30800	-33270	-37030	-33410	-34920	-50310
-3.987	.189	-32510	-32230	-33220	-34530	-30180	-31460	-35380	-33040	-33490	-49870
-3.981	4.272	-33890	-31350	-34170	-31470	-30600	-30720	-35190	-31760	-35220	-55840
	GRADIENT	-00141	00285	-00202	00525	00024	00314	00226	00203	-00038	-00325

RUN NO. 388/ 0 RN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.08	-3.858	-33020	-33330	-32950	-36380	-31060	-33080	-35770	-32800	-34570	-53870
.010	.177	-31660	-31950	-32590	-34040	-30800	-32220	-35440	-31960	-33740	-50540
.007	4.253	-33010	-31630	-34730	-31630	-30860	-31420	-34470	-31940	-33930	-53430
	GRADIENT	00001	00209	-00220	00585	00027	00204	00283	00106	00079	00053

RUN NO. 389/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.005	-3.869	-33780	-33730	-32780	-35050	-31090	-33710	-36880	-32860	-33590	-52560
4.002	.179	-32930	-32200	-33330	-34580	-30330	-32360	-35340	-32340	-34310	-51230
4.006	4.240	-32910	-30520	-34160	-32340	-30750	-32210	-34600	-30940	-32780	-51550
	GRADIENT	00107	00396	-00170	00334	00042	00185	00281	00249	00112	00078

RUN NO. 390/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.976	-3.869	-33140	-33070	-34370	-36110	-30540	-33040	-39220	-33660	-32430	-52640
7.978	.182	-32820	-32370	-32770	-32480	-30920	-33140	-38040	-32620	-33800	-51010
7.979	4.241	-33160	-30460	-34790	-32070	-30480	-32660	-35920	-29090	-32890	-51740
	GRADIENT	-00002	00322	-00052	00498	00007	00047	00407	00564	-00057	00111

RUN NO. 391/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.950	-3.853	-33100	-33690	-33290	-35300	-30860	-33200	-38810	-34170	-34130	-55390
11.955	.189	-31800	-32910	-32130	-34360	-29800	-32020	-35490	-31880	-34460	-53410
11.946	4.250	-32170	-32030	-34840	-33090	-28720	-31490	-32930	-28350	-34500	-55190
	GRADIENT	00114	00205	-00192	00272	00264	00211	00725	00718	-00038	00024



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RE8Y70) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

RUN NO. 392/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.949	-7.852	-30940	-30990	-30630	-33800	-28230	-32040	-38540	-31110	-32680	-61460
-3.533	-3.643	-30220	-32150	-29040	-34200	-28680	-31650	-37090	-31650	-33120	-59760
-3.333	.189	-30280	-31270	-29150	-33540	-28750	-31250	-35900	-32090	-33730	-58470
-3.335	4.269	-30610	-31490	-29220	-33350	-28280	-30970	-33710	-29100	-33750	-63380
-3.943	8.334	-30090	-30970	-31150	-31290	-28340	-29860	-32720	-25620	-32460	-65800
	GRADIENT	-100048	.00081	-00022	.00105	.00049	.00084	.00417	.00315	-00078	-00448

RUN NO. 393/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.049	-7.888	-31760	-32140	-31500	-34330	-28410	-31940	-39020	-31690	-33140	-56710
.055	-3.864	-30270	-30050	-29160	-34000	-27990	-31380	-37750	-31410	-32810	-62200
.053	.180	-30230	-30230	-29300	-32900	-28380	-30770	-34870	-30950	-32830	-59240
.055	4.251	-30460	-31070	-29350	-32920	-28560	-30990	-33410	-28820	-31650	-63740
.051	8.306	-31220	-31170	-32210	-31970	-28590	-30240	-33520	-25990	-31670	-67990
	GRADIENT	-00023	-00126	-00059	.00096	-00070	.00148	.00535	.00319	.00143	-00191

RUN NO. 394/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.003	-7.658	-32030	-32760	-32570	-34160	-28280	-32180	-39390	-32220	-33050	-66480
4.002	-3.861	-31310	-30670	-30150	-33080	-28210	-31210	-38010	-31540	-31160	-61190
4.000	.182	-30010	-29530	-29750	-31680	-27770	-30990	-34540	-29060	-31170	-57430
4.003	4.239	-30830	-30400	-30630	-32410	-28840	-30970	-34370	-28020	-31050	-61490
4.009	8.292	-31940	-29310	-32340	-30660	-28480	-30460	-32810	-26090	-31630	-65910
	GRADIENT	.00078	.00033	-00059	.00083	-00078	.00030	.00449	.00434	.00012	-00038

RUN NO. 395/ 0 RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.945	-7.890	-33180	-33440	-32760	-34650	-28790	-32780	-39270	-33110	-32310	-57820
7.956	-3.860	-30550	-31340	-30630	-32630	-28200	-31290	-38780	-32630	-31080	-60350
7.955	.181	-29310	-29400	-29700	-29360	-27330	-30490	-37360	-29700	-31130	-58250
7.955	4.234	-31240	-29420	-32070	-30820	-28470	-30970	-37190	-29570	-32320	-61630
7.954	8.280	-32050	-29040	-33990	-30560	-28410	-31060	-31860	-26550	-31490	-56900
	GRADIENT	-00035	.00237	-00178	.00223	-00033	.00039	.00196	.00378	-00116	-00159

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBY70) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPD BRK = 55.000  
 BDF LAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

RUN NO. 396/ 0 RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.925	-7.848	-31530	-32550	-32660	-35480	-28130	-32310	-39970	-34470	-32590	-71720
11.942	-3.851	-30490	-31270	-30820	-32720	-27550	-31380	-42790	-32370	-30330	-59050
11.947	.182	-30400	-29050	-29970	-31250	-27440	-30420	-36100	-28480	-31630	-57290
11.942	4.245	-30700	-27610	-31980	-30510	-27630	-30960	-33750	-24350	-29050	-58500
11.935	8.309	-32220	-28830	-33630	-31100	-28480	-29820	-31280	-24770	-33770	-67740
	GRADIENT	-60026	.00452	-00144	.00273	-00010	.00052	.01116	.00991	.00154	.00067

AMES 11-073(0A148) -140A/B/C ORBITER

(REBY71) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPD BRK = 55.000  
 BDF LAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

RUN NO. 397/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.946	-3.857	-35120	-36500	-33820	-37450	-32620	-35200	-37130	-34630	-36300	-47280
-3.940	.190	-34210	-35940	-33280	-35490	-32300	-34370	-36720	-34130	-35570	-45140
-3.946	4.272	-34100	-34440	-33940	-33910	-31720	-33500	-35390	-33710	-36570	-48620
	GRADIENT	.00125	.00266	-00015	.00435	.00111	.00209	.00215	.00113	-00033	-00166

RUN NO. 398/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.016	-3.873	-35500	-38110	-34290	-38900	-33580	-36430	-38850	-35930	-38050	-49120
.022	.180	-34510	-36960	-33630	-37110	-32930	-35260	-37280	-35250	-37640	-46650
.019	4.248	-35650	-35100	-35930	-36030	-33320	-35150	-36980	-35430	-38240	-49940
	GRADIENT	-00019	.00248	-00208	.00353	.00032	.00158	.00230	.00062	-00019	-00101

RUN NO. 399/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.951	-3.877	-35560	-38270	-34210	-38890	-34130	-36570	-39470	-36480	-37520	-48890
3.952	.179	-34990	-37060	-33870	-37700	-32890	-35610	-36750	-35020	-35330	-48690
3.955	4.242	-35410	-35740	-36620	-36790	-34070	-35520	-35100	-35760	-37350	-49730
	GRADIENT	-00092	.00188	-00297	.00259	.00007	.00129	.00415	.00089	.00017	-00104

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RE8Y71) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

RUN NO. 400/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.987	-3.873	-36090	-38620	-34880	-39790	-34450	-36950	-39800	-37140	-37610	-48690
7.995	.177	-36200	-38410	-35130	-38770	-34070	-36690	-37770	-35680	-37210	-49090
7.892	4.237	-36650	-37650	-36410	-37850	-34780	-36370	-35090	-36350	-38010	-50500
	GRADIENT	-0.0069	.00120	-0.0189	.00239	-0.0041	.00072	.00581	.00097	-0.00049	-0.00223

RUN NO. 401/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.960	-3.861	-37210	-37540	-36900	-38950	-35370	-36990	-40250	-37540	-37850	-48690
11.969	.177	-35450	-37210	-34850	-38610	-33950	-36000	-37520	-36590	-37230	-48720
11.967	4.251	-36230	-39090	-34970	-39810	-35060	-37800	-36540	-36540	-38230	-50240
	GRADIENT	.00120	-0.0191	.00238	-0.00106	.00038	-0.00100	.00408	.00123	-0.00047	-0.00193

RUN NO. 402/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
15.903	-3.840	-36140	-37980	-35360	-40710	-35270	-37790	-40000	-38600	-39000	-50650
15.917	.180	-37170	-39450	-35930	-41620	-36040	-38470	-38850	-37970	-38630	-50920
15.910	4.280	-35970	-39190	-35420	-41140	-34920	-38010	-38230	-38040	-39770	-50980
	GRADIENT	.00022	-0.0148	-0.0007	-0.00052	.00044	-0.00027	.00218	.00069	-0.00095	-0.00041

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

AMES 11-073(0A148) -140A/B/C ORBITER

(RE8Y72) ( 12 AUG 75 )

## PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.250

RUN NO. 403/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.944	-3.854	-38350	-41000	-37520	-41810	-35210	-40180	-43630	-39700	-40840	-54690
-3.937	.190	-37080	-39250	-35890	-38920	-35290	-37650	-42080	-36820	-40390	-53260
-3.943	4.266	-39440	-39300	-36820	-37770	-35660	-37140	-40210	-37160	-43740	-56660
	GRADIENT	-0.0012	.00332	-0.0161	.00497	.00068	.00374	.00421	.00312	-0.00358	-0.00490

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(RE8Y72) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SFDERK = 55.0000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.250

RUN NO. 404/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.045	-3.865	-39090	-42110	-38420	-42660	-36660	-40950	-42750	-39450	-41090	-54650
.050	.176	-38660	-41020	-37950	-40580	-36350	-39110	-42560	-37770	-41350	-53710
.045	4.247	-39420	-39350	-40280	-38470	-36660	-38280	-41100	-35710	-42740	-58330
	GRADIENT	-0.0041	.00340	-0.0230	.00517	-0.0000	.00329	.00204	.00091	-0.00204	-0.00454

RUN NO. 405/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.983	-3.876	-39330	-42290	-38760	-42630	-37570	-41430	-43290	-39340	-41000	-57980
3.984	.181	-39320	-42390	-38970	-42610	-37760	-41290	-42220	-39120	-41250	-52740
	4.240	-40230	-40330	-40710	-39920	-37960	-39580	-39630	-35700	-41430	-57420
	GRADIENT	-0.0049	.00242	-0.00240	.00334	-0.0048	.00228	.00451	.00079	-0.00053	.00069

RUN NO. 406/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.933	-3.872	-41320	-43470	-40050	-43850	-39070	-42290	-45360	-41070	-41260	-58620
7.940	.173	-41330	-43650	-40750	-44050	-38840	-42070	-43020	-40680	-41760	-54650
7.943	4.236	-41670	-42380	-41570	-42620	-39450	-41430	-40970	-40450	-42310	-57240
	GRADIENT	-0.0043	.00135	-0.00187	.00152	-0.0047	.00106	.00541	.00076	-0.00130	.00170

RUN NO. 407/ 0 RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
12.023	-3.855	-42150	-44590	-41130	-45560	-40440	-43560	-46510	-42840	-42270	-59700
12.037	.182	-41130	-42830	-40340	-44140	-39210	-41670	-43360	-41120	-42190	-54380
12.032	4.249	-41180	-43620	-40940	-44530	-40410	-43200	-41220	-41820	-43020	-58180
	GRADIENT	.00120	.00119	.00023	.00139	.00003	.00044	.00653	.00125	-0.00094	.00186

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C ORBITER

(REBY73) 1 12 AUG 75 )

## REFERENCE DATA

SPRF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPOBSK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 PACH = 1.100

RUN NO. 408/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.958	-2.850	-419+0	-42730	-41300	-43930	-39830	-42800	-47220	-42420	-45750	-67070
-3.953	.190	-397+0	-38720	-39+80	-38860	-37530	-39+00	-43630	-397+0	-453+0	-65180
-3.930	4.266	-432+0	-39570	-43000	-39520	-33570	-44180	-52730	-41490	-52730	-71180
	GRADIENT	-0.0161	.00388	-0.00210	.005+7	.00031	.00395	.00374	.00114	-0.00739	-0.00508

RUN NO. 409/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.047	-3.869	-42+00	-43090	-42180	-44330	-39820	-43370	-47370	-419+0	-45220	-66670
.052	.177	-40500	-41530	-40360	-41750	-38310	-41250	-43990	-39270	-43600	-64400
.046	4.245	-43290	-38310	-42390	-39340	-39140	-355+0	-43520	-40430	-50120	-68930
	GRADIENT	-0.0110	.00515	-0.00333	.00615	.00084	.00460	.00474	.00165	-0.00593	-0.00279

RUN NO. 410/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.012	-3.872	-43330	-44070	-42930	-44950	-40670	-44120	-47920	-42900	-431+0	-64540
4.014	.182	-42110	-44020	-42040	-44130	-39740	-43180	-44470	-39740	-43660	-61850
4.006	4.238	-44020	-40130	-44850	-41490	-39900	-41900	-43000	-39930	-47710	-64650
	GRADIENT	-0.0085	.00486	-0.00237	.00427	.00355	.00274	.00607	.00379	-0.00564	-0.00014

RUN NO. 411/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.976	-3.869	-45620	-46860	-45280	-47670	-42630	-46980	-50780	-45740	-44410	-64270
7.984	.174	-44050	-45760	-44190	-46100	-41580	-44910	-46270	-41650	-44620	-62510
7.984	4.233	-45910	-45260	-46970	-43830	-42890	-45070	-44280	-41350	-46450	-67710
	GRADIENT	-0.00024	.00197	-0.00209	.00474	-0.00011	.00236	.00902	.00542	-0.00453	-0.00425

RUN NO. 412/ 0 RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
12.067	-3.848	-46340	-48130	-46060	-49320	-43510	-47580	-50150	-45330	-45410	-65990
12.077	.180	-44710	-47090	-44550	-48120	-42760	-46140	-48220	-43830	-45520	-64210
12.076	4.245	-46660	-46920	-47590	-47800	-44240	-46550	-45220	-44070	-46910	-67250
	GRADIENT	-0.00040	.00149	-0.00190	.00188	-0.00391	.00127	.00609	.00265	-0.00473	-0.00157

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C ORBITER

(REB74) 1 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER =  
 BDFLAP =  
 ELV-R =

PARAMETRIC DATA  
 -5.000 SPDERX = 55.000  
 16.300 ELV-L = -10.500  
 -10.000 YACH = .500

RUN NO. 413/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.998	-3.854	-28780	-31150	-29200	-34180	-23100	-20350	-23920	-30470	-32760	-40800
-3.915	.189	-29710	-30120	-30920	-31610	-28390	-26320	-33440	-30520	-31990	-40330
-3.961	4.266	-32250	-27610	-32910	-29100	-28260	-27410	-35400	-29550	-32220	-45700
	GRADIENT	-00428	.00436	-00457	.00626	-00020	.00352	.03157	-00110	.00055	-00028

RUN NO. 414/ 0 RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.055	-3.868	-29150	-30690	-28600	-32590	-27570	-30370	-32230	-29510	-32930	-40640
.084	.180	-23150	-29710	-30400	-31020	-27950	-28350	-31520	-29400	-31400	-40350
.055	4.248	-30710	-28180	-31710	-29410	-28150	-26000	-32030	-29300	-31350	-45360
	GRADIENT	-00192	.00309	-00383	.00392	-00022	.00519	.00015	-00057	.00012	-00078

RUN NO. 415/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.001	-3.875	-28430	-30250	-29730	-32340	-27450	-30320	-32260	-29110	-32940	-40820
4.079	.183	-29270	-29740	-29790	-31040	-27930	-26550	-31670	-28990	-30910	-40360
4.001	4.242	-30650	-27650	-32100	-29070	-27440	-25150	-30770	-29910	-30480	-45230
	GRADIENT	-00143	.00320	-00292	.00403	.00001	.00262	.00307	-00148	.00044	-00033

RUN NO. 416/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.933	-3.872	-28850	-25590	-29710	-32180	-27340	-29050	-32000	-29360	-30920	-40880
8.033	.177	-27950	-28000	-29470	-29590	-28520	-26590	-30570	-29000	-30480	-40320
8.031	4.235	-29380	-27370	-30970	-27510	-26700	-27550	-29250	-27420	-28970	-45270
	GRADIENT	-00126	.00274	-00156	.00576	.00079	.00185	.00461	-00461	.00137	-00037

RUN NO. 417/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.050	-3.859	-27050	-29710	-28450	-31590	-28110	-28500	-33100	-28940	-30920	-40330
12.120	.183	-26950	-27760	-27570	-29530	-25110	-25720	-30100	-28500	-30300	-40360
12.054	4.256	-28520	-26010	-30440	-28230	-25670	-26610	-29500	-28930	-29990	-45360
	GRADIENT	-00181	.00456	-00246	.00425	.00029	.00220	.00445	-00445	.00011	-00030

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(REBY75) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORBITER

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = -5.000 SPOBRK = 5.000  
 BDFLAP = 16.300 ELVN-L = -.0000  
 ELVN-R = -10.000 MACH = .600

## PARAMETRIC DATA

RUN NO. 418/ 0 RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.939	-7.854	-2.7960	-3.0270	-2.7820	-3.2270	-2.5880	-2.9410	-3.4790	-2.8990	-3.1420	-6.2070
-3.939	-7.848	-2.6970	-3.0300	-2.5560	-3.2950	-2.6010	-2.8610	-3.4300	-2.9220	-3.1000	-5.9760
-3.938	1.7	-2.6570	-2.8160	-2.6460	-3.0990	-2.6530	-2.8550	-3.3750	-2.9710	-3.1460	-5.9660
-3.936	4.15	-2.8060	-2.7940	-2.8600	-2.9420	-2.6490	-2.8360	-3.1870	-2.7680	-3.1120	-6.3740
-3.941	8.342	-2.8730	-2.6750	-3.0310	-2.6700	-2.6410	-2.7180	-2.8930	-2.5780	-2.9920	-6.4420
	GRADIENT	-0.0135	.00290	-0.0375	.00435	-0.0059	.00031	.00300	.00190	-0.0015	-0.00431

RUN NO. 419/ 0 RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.043	-7.890	-2.8970	-3.1050	-2.9540	-3.3320	-2.6400	-2.9930	-3.5470	-2.9140	-3.1670	-6.5600
.091	-3.863	-2.7650	-2.9660	-2.6500	-3.1690	-2.6640	-2.9700	-3.4100	-2.9630	-3.1970	-6.0860
.092	.181	-2.7650	-2.8850	-2.7250	-3.0500	-2.6580	-2.8270	-3.2010	-2.7780	-3.1520	-5.9770
.077	4.247	-2.8160	-2.8750	-2.6630	-2.9190	-2.6850	-2.8490	-3.0350	-2.6360	-3.0600	-6.3160
.073	8.305	-2.8260	-2.8270	-3.0230	-2.8130	-2.6520	-2.7650	-3.0580	-2.4960	-2.9150	-6.4430
	GRADIENT	-0.0063	.00112	-0.0263	.00308	-0.0026	.00149	.00398	.00403	.00169	-0.00264

RUN NO. 420/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.023	-7.904	-2.9160	-3.0770	-3.0080	-3.3030	-2.6100	-2.9700	-3.5570	-2.8860	-3.1640	-6.4580
4.026	-3.864	-2.8190	-2.9740	-2.7900	-3.2450	-2.6740	-2.9380	-3.3480	-2.9220	-3.0550	-5.9230
4.153	.177	-2.6540	-2.7910	-2.6940	-2.9590	-2.5220	-2.7530	-2.9870	-2.6160	-2.8770	-5.7050
4.012	4.240	-2.8840	-2.7900	-3.0730	-2.8960	-2.6730	-2.8370	-3.1740	-2.7230	-2.9170	-5.9320
4.017	8.288	-3.0350	-2.6040	-3.0650	-2.8040	-2.7120	-2.7260	-2.9590	-2.4990	-2.8850	-6.2290
	GRADIENT	-0.0081	.00227	-0.0350	.00430	.00001	.00124	.00214	.00245	.00170	-0.00012

RUN NO. 421/ 0 RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.953	-7.893	-2.9300	-3.1280	-3.0200	-3.3970	-2.6640	-2.9840	-3.5410	-2.9840	-2.9210	-6.7820
7.971	-3.863	-2.7740	-2.9300	-2.7740	-3.2180	-2.5990	-2.8380	-3.3970	-2.7600	-2.9800	-5.8770
8.077	.178	-2.6970	-2.7470	-2.7330	-2.9050	-2.4270	-2.6870	-3.0190	-2.2540	-2.7900	-5.6770
8.079	4.235	-2.9160	-2.6270	-3.0410	-2.8290	-2.6060	-2.6780	-3.1730	-2.4640	-2.9070	-5.8690
8.076	8.290	-3.1030	-2.6740	-3.1830	-2.6510	-2.7370	-2.7510	-2.8960	-2.5600	-2.9240	-5.2080
	GRADIENT	-0.0176	.00374	-0.0330	.00480	-0.0009	.00272	.00276	.00355	.00090	-0.00010

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBY75) ( 12 AUG 75 )

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = -5.000 SPDBRK = 55.000  
BDFLAP = 16.300 ELVN-L = -10.000  
ELVN-R = -10.000 MACH = .600

RUN NO.		422/ 0	RN/L = 4.87	GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
	-7.850	-28570	-30830	-29940	-32900
	-3.840	-26430	-28370	-27120	-31250
	.180	-26180	-26590	-26670	-23540
	4.244	-28770	-25040	-30750	-26710
GRADIENT	8.307	-31090	-26230	-32370	-26230
		-00290	.00412	-00450	.00561
					.00068
					.00273
					.00770
CP3	CP4	CP5	CP6		
	-31290	-30120	-69930		
	-27040	-27440	-57250		
	-23350	-25460	-56060		
	-21150	-26540	-58280		
CP3	CP4	CP5	CP6		
	-22170	-30460	-68920		
	.00728	.00062	-30127		

(REBY76) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORBITER

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = -10.000 SPDBRK = .000  
BDFLAP = -11.700 ELVN-L = 10.000  
ELVN-R = -10.000 MACH = 1.400

RUN NO.		423/ 0	RN/L = 2.91	GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
	-3.853	-35340	-35340	-35440	-35750
	.191	-35110	-34610	-35600	-35640
	4.275	-35250	-34250	-35650	-35320
		.00011	.00134	-00027	.00053
GRADIENT					.00016
					.00236
CP3	CP4	CP5	CP6		
	-33380	-35460	-37320		
	-33720	-35430	-37760		
	-33750	-35810	-41890		
	-00045	-00043	-00563		
CP3	CP4	CP5	CP6		
	-32690	-35350	-36910		
	-32260	-35850	-36650		
	-34050	-36750	-43960		
	-00168	-00177	-00881		
CP3	CP4	CP5	CP6		
	-31690	-35340	-38490		
	-32690	-34690	-40550		
	-33610	-36040	-45650		
	-00237	-00066	-00982		

RUN NO.		424/ 0	RN/L = 2.91	GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP204	CP205
	-3.866	-35420	-35420	-35200	-35460
	.181	-35330	-35600	-35600	-35550
	4.255	-35160	-35390	-35930	-35950
		-00193	.00005	-00090	.00060
GRADIENT					.00004
					.00037
CP3	CP4	CP5	CP6		
	-32690	-35350	-36910		
	-32260	-35850	-36650		
	-34050	-36750	-43960		
	-00168	-00177	-00881		
CP3	CP4	CP5	CP6		
	-31690	-35340	-38490		
	-32690	-34690	-40550		
	-33610	-36040	-45650		
	-00237	-00066	-00982		



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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(REBY76) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORBITER

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 426/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
ALPHA										
BETA										
7.887	-3.866	-3.4850	-3.4850	-3.5130	-3.1130	-3.4070	-3.4830	-3.3090	-3.3710	-3.3880
7.934	.189	-3.3880	-3.3860	-3.3160	-3.3180	-3.3160	-3.3470	-3.3330	-3.34380	-4.1070
7.961	4.247	-3.3570	-3.3530	-3.3340	-3.3340	-3.34870	-3.4990	-3.4440	-3.5020	-4.7380
GRADIENT	-0.0142	-0.0111	-0.0096	-0.0153	-0.0272	-0.0099	-0.0020	-0.0166	-0.0285	-0.00925

RUN NO. 427/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
ALPHA										
BETA										
11.871	-3.849	-3.4550	-3.4520	-3.5870	-3.2050	-3.4080	-3.5210	-3.4230	-3.3650	-4.0480
11.913	.191	-3.4890	-3.5560	-3.3430	-3.2430	-3.3440	-3.4920	-3.5110	-3.5510	-4.2140
11.908	4.262	-3.3520	-3.3320	-3.3270	-3.2970	-3.35140	-3.5140	-3.4830	-3.4860	-4.5300
GRADIENT	-0.0183	-0.0243	-0.0061	-0.0122	-0.0113	-0.0228	-0.0009	-0.0074	-0.0149	-0.00594

RUN NO. 428/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
ALPHA										
BETA										
15.905	-3.830	-3.5920	-3.36760	-3.35440	-3.2970	-3.5690	-3.6670	-3.5040	-3.5210	-4.2020
15.917	.190	-3.3820	-3.37830	-3.39450	-3.3570	-3.36340	-3.7820	-3.7110	-3.7110	-4.4350
15.907	4.290	-3.39310	-3.37530	-3.3620	-3.3430	-3.37470	-3.7400	-3.6780	-3.7660	-5.0080
GRADIENT	-0.0177	-0.0417	-0.0094	-0.00513	-0.0056	-0.0219	-0.0089	-0.0213	-0.0301	-0.00994

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 429/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
ALPHA										
BETA										
-4.016	-3.849	-3.39090	-3.3260	-3.3360	-3.5080	-3.38290	-3.38810	-3.4270	-3.3810	-4.2110
-4.011	.186	-3.3960	-3.38940	-3.3180	-3.34720	-3.38050	-3.7780	-3.6600	-3.39460	-4.5420
-4.020	4.275	-3.38490	-3.3570	-3.3040	-3.35500	-3.36770	-3.6770	-3.6000	-4.0300	-5.1110
GRADIENT	-0.03095	-0.0074	-0.0038	-0.0039	-0.0052	-0.0331	-0.0251	-0.0287	-0.0146	-0.1108

AMES 11-073(0A148) -140A/B/C ORBITER

(REBY77) ( 12 AUG 75 )

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.250

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBY77) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDSRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.250

RUN NO. 430/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.012	-3.863	-36870	-38040	-38350	-38190	-33930	-37420	-36820	-33620	-38090	-44540
.014	.176	-36750	-37950	-38500	-38550	-34220	-37040	-35900	-35150	-35500	-47140
.026	4.255	-39060	-37940	-38350	-38210	-35650	-37610	-36530	-36410	-39520	-53220
	GRADIENT	-00147	.00012	-00062	-00002	-00212	-00024	.00035	-00344	-00175	-01058

RUN NO. 431/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.987	-3.868	-36580	-37510	-37800	-37490	-33560	-37290	-36360	-35210	-35550	-49940
3.988	.182	-35850	-36570	-37030	-36810	-33780	-35680	-35090	-35030	-37030	-47550
3.988	4.246	-38040	-38230	-38760	-38560	-36100	-37200	-36650	-36320	-38210	-55510
	GRADIENT	-00180	-00089	-00118	-00132	-00313	.00011	-00036	-00137	-00205	-00667

RUN NO. 432/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.974	-3.859	-36440	-37820	-39180	-38180	-33920	-37390	-37340	-36550	-35350	-50950
7.979	.184	-35590	-37170	-37310	-37750	-33560	-36440	-36560	-36370	-37510	-49240
7.978	4.242	-38520	-38920	-39520	-39550	-35970	-37620	-37910	-37770	-37950	-53010
	GRADIENT	-00257	-00136	-00166	-00169	-00253	-00029	-00070	-00151	-00322	-00255

RUN NO. 433/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.961	-3.847	-39120	-39190	-40220	-40290	-35500	-38680	-39230	-39530	-36740	-51270
11.970	.192	-38790	-38260	-40350	-40510	-35750	-37350	-39100	-38380	-39900	-51010
11.962	4.260	-37860	-40370	-39150	-40610	-36350	-39780	-38560	-38720	-38560	-51170
	GRADIENT	.00156	-00146	.00132	-00039	-00105	-00136	.00083	-00024	-00224	.00012

DATE 08 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(REBY78) ( 12 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
BDFLAP = -11.700 ELVN-L = 10.000  
ELVN-R = -10.000 MACH = 1.100

RUN NO. 434/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.082	-3.839	-39360	-39360	-39820	-40010	-37330	-39120	-35220	-35010	-41240	-52160
-4.059	.195	-39530	-39310	-40340	-39910	-37010	-38920	-35720	-36550	-40570	-52790
-4.055	4.277	-41730	-41650	-42710	-42560	-38730	-41120	-38820	-39060	-44080	-60060
	GRADIENT	-50233	-00283	-00357	-00315	-00173	-00247	-00444	-00499	-00351	-00975

RUN NO. 435/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
0.040	-3.863	-37780	-37540	-38370	-38090	-35620	-37440	-34780	-34020	-38780	-56010
0.041	.186	-37900	-37800	-38930	-38450	-35570	-37630	-34470	-34880	-39090	-54510
0.035	4.252	-39790	-39480	-40560	-40340	-36940	-39090	-37080	-36720	-40590	-59180
	GRADIENT	-00248	-00239	-00270	-00277	-00150	-00203	-00284	-00333	-00223	-00391

RUN NO. 436/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.006	-3.854	-38330	-38290	-38240	-38460	-35840	-37970	-35530	-33830	-38020	-57570
4.004	.194	-37760	-37590	-38450	-38000	-35330	-37340	-34850	-35240	-37990	-55390
4.004	4.242	-39540	-39490	-40280	-39660	-36950	-38740	-36260	-36540	-39530	-58870
	GRADIENT	-00142	-00148	-00252	-00148	-00137	-00095	-00090	-00334	-00186	-00160

RUN NO. 437/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
8.022	-3.857	-36820	-36340	-39230	-39110	-36220	-38510	-37310	-35980	-37070	-54300
8.002	.186	-39330	-38940	-39890	-39220	-36150	-38760	-37250	-36850	-38470	-58470
7.997	4.239	-40260	-40550	-41080	-40880	-37590	-39810	-38450	-37900	-39810	-59280
	GRADIENT	-00178	-00273	-00229	-00219	-00169	-00161	-00141	-00237	-00338	-00615

RUN NO. 438/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.963	-3.838	-40700	-40310	-41900	-41180	-37230	-40190	-40500	-36700	-38260	-56780
11.957	.194	-41330	-42030	-42630	-42190	-38020	-41710	-40830	-40200	-40830	-60910
11.958	4.256	-41500	-41740	-43350	-42630	-38340	-39870	-39750	-40450	-40294	-54600
	GRADIENT	-00099	-00176	-00179	-00179	-00137	-00040	-00093	-00463	-00294	-00271

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REB79) ( 12 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = -10.000 SPCERK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .900

RUN NO. 439/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.051	-3.840	-24740	-24950	-26420	-26190	-21500	-24290	-20430	-20950	-23490	-43560
-4.055	.232	-25420	-26130	-30700	-26610	-21350	-25810	-23980	-22030	-21820	-38360
-4.070	4.283	-26940	-27790	-31500	-28200	-21200	-26970	-25380	-23720	-22560	-39050
	GRADIENT	-00271	-00330	-00379	-00248	.00037	-00330	-00609	-00341	.00112	.00554

RUN NO. 440/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.045	-3.859	-24550	-22620	-27970	-24670	-21060	-23120	-20700	-19420	-21510	-38190
.042	.192	-26340	-24180	-29630	-25510	-20460	-23430	-22530	-20390	-20360	-37190
.032	4.260	-23330	-26930	-29830	-23050	-21760	-26810	-24540	-22600	-21830	-33480
	GRADIENT	-00589	-00519	-00241	-00416	-00089	-00455	-00473	-00416	-00040	.00560

RUN NO. 441/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
4.023	-3.661	-23120	-21930	-25970	-23780	-20300	-22760	-19440	-17730	-20830	-36100
4.017	.197	-23750	-23360	-28260	-24480	-19270	-22920	-21170	-19340	-19580	-35680
4.017	4.251	-29230	-26490	-29300	-27040	-21710	-25530	-25340	-22680	-21070	-33700
	GRADIENT	-00753	-00562	-00300	-00402	-00174	-00341	-00727	-00610	-00033	.00296

RUN NO. 442/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.937	-3.857	-23340	-21750	-26070	-23600	-19260	-22860	-18520	-17580	-21040	-35660
7.934	.192	-24010	-23590	-28380	-24460	-20570	-23420	-20100	-18640	-21070	-36840
7.926	4.250	-27680	-25250	-29440	-26350	-21040	-24900	-23670	-21080	-20400	-32210
	GRADIENT	-00536	-00432	-00416	-00339	-00220	-00252	-00635	-00432	-00079	.00549

RUN NO. 443/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.269	-3.847	-25600	-24720	-28090	-23450	-21530	-24940	-20620	-20360	-24440	-41450
11.576	.196	-24900	-25040	-27830	-26830	-22050	-25590	-22310	-19130	-23780	-40520
11.956	4.265	-26820	-27160	-30400	-27650	-22470	-26060	-24190	-21350	-24960	-40150
	GRADIENT	-00358	-00301	-00416	-00147	-00116	-00138	-00440	-00123	-00006	.00160

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBY80) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .600

RUN NO. 444/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-4.078	-7.858	-23690	-24960	-29660	-27240	-20110	-25760	-20970	-18240	-23210	-39020
-4.062	-3.836	-23450	-25210	-28730	-26760	-20310	-25500	-21940	-19240	-22130	-39160
-4.051	.183	-26330	-26400	-29610	-27780	-20910	-26780	-25410	-21170	-19000	-34810
-3.963	4.258	-28530	-28500	-31050	-28900	-20670	-28010	-27730	-21950	-18920	-34320
-3.935	8.327	-28740	-29580	-31630	-30380	-21020	-29720	-28700	-23430	-20000	-35390
	GRADIENT	-00627	-00407	-00260	-00264	-00044	-00310	-00715	-00334	.00396	.00597

RUN NO. 445/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-0.53	-7.896	-24090	-24370	-26770	-26210	-20670	-24610	-20080	-19130	-22690	-40500
-0.08	-3.854	-23730	-24530	-28010	-26530	-20120	-25230	-22690	-18600	-21080	-38160
-0.29	.176	-24950	-25360	-29620	-27060	-20280	-26150	-25070	-20630	-18320	-34250
-0.52	4.239	-28000	-27850	-30890	-27620	-20530	-27580	-26790	-21980	-18310	-33110
-0.06	8.284	-32460	-28520	-30410	-28730	-20060	-27970	-28410	-23680	-21950	-35290
	GRADIENT	-00528	-00410	-00356	-00135	-00051	-00290	-00506	-00418	.00342	.00624

RUN NO. 446/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.903	-7.902	-22330	-23810	-26190	-25500	-19840	-23970	-22620	-17950	-21170	-38630
3.907	-3.866	-22780	-24120	-27250	-25440	-20020	-24650	-22480	-17500	-21450	-37450
3.964	.180	-22870	-25640	-29120	-25760	-19680	-26100	-23320	-19100	-19080	-35180
3.988	4.226	-26340	-26500	-30270	-27660	-20340	-26950	-26510	-21980	-17710	-30410
4.029	8.276	-24620	-27490	-30660	-27250	-19910	-27710	-26940	-22410	-20260	-32020
	GRADIENT	-00440	-00305	-00373	-00274	-00040	-00284	-00498	-00554	.00462	.00870

RUN NO. 447/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.903	-7.896	-22100	-22780	-25590	-25260	-19300	-23530	-22080	-17390	-21610	-32740
7.912	-3.651	-22550	-23530	-26360	-24470	-19710	-24310	-21090	-16600	-20800	-37610
8.059	.184	-25570	-24180	-28710	-25240	-19670	-24000	-22990	-19100	-19310	-35810
8.016	4.233	-23940	-26150	-30040	-27120	-20250	-26890	-27330	-22940	-19050	-37910
8.043	8.283	-29420	-27690	-30000	-27890	-19700	-29010	-28420	-25460	-22010	-34880
	GRADIENT	-00170	-00318	-00455	-00328	-00067	-00319	-00772	-00784	.00216	.00037

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBY80) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .600

RUN NO. 448/ 0 RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.974	-7.860	-22600	-22900	-26150	-24690	-19260	-23160	-22650	-118530	-119870	-34440
11.933	-3.842	-22310	-23470	-26400	-24750	-19520	-23580	-22100	-116890	-20480	-36170
12.335	.179	-23030	-23970	-27600	-25480	-19380	-24770	-23680	-12640	-17790	-33730
12.227	4.242	-23740	-24800	-28100	-26360	-19010	-24750	-22150	-21720	-21550	-37230
12.061	8.297	-27600	-27740	-28330	-28970	-19550	-27610	-28540	-25010	-24350	-42310
	GRADIENT	-00177	-00165	-00210	-00199	-00063	-00144	-00382	-00597	-00135	-00132

AMES 11-073(0A148) -140A/B/C ORBITER

(REBY81) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.400

RUN NO. 449/ 0 RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.955	.178	-35830	-35340	-36240	-37490	-33750	-36060	-37600	-35920	-37170	-36570
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 450/ 0 RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.028	.177	-35760	-36040	-35840	-36930	-33600	-35740	-36870	-35040	-36770	-36370
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 451/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.845	-3.872	-35630	-35580	-36070	-35990	-33610	-35450	-37160	-35330	-37610	-43580
3.883	.185	-34600	-35210	-35430	-35720	-33020	-34280	-35690	-34560	-36170	-40360
3.932	4.246	-34690	-35370	-35570	-36000	-32400	-34980	-34960	-34910	-35970	-39170
	GRADIENT	.00129	.00025	.00062	-00001	.00149	.00058	.00269	.00052	.00222	.00552

REFERENCE DATA

SREF = 2690.0000 SQ.FT.

LREF = 474.8000 IN.

BREF = 936.6800 IN.

SCALE = .0300

XMRP = 1076.6800 IN. X0

YMRP = .0000 IN. Y0

ZMRP = 375.0000 IN. Z0

BETA

GRADIENT

RUDDER = 10.000

BDFLAP = -11.700

ELVN-R = 10.000

SPDBRK = .000

ELVN-L = -10.000

MACH = 1.400

RUN NO.		452/ 0	RN/L = 2.92		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP205	CP2	CP3
7.903	.179	-34200	-35100	-35460	-34160	-35490
	GRADIENT	.00000	.00000	.00000	.00000	.00000

RUN NO.		453/ 0	RN/L = 2.91		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP205	CP2	CP3
11.906	-3.868	-36260	-36960	-38870	-36280	-38090
11.838	.169	-34340	-36690	-37630	-35740	-36990
11.687	4.249	-37240	-37480	-37430	-36970	-36510
	GRADIENT	-00122	-00064	.00177	-00085	.00195

RUN NO.		454/ 0	RN/L = 2.91		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP205	CP2	CP3
15.870	.160	-36340	-38590	-39220	-37830	-38940
	GRADIENT	.00000	.00000	.00000	.00000	.00000

AMES 11-073(0A148) -140A/B/C ORBITER

(REBY82) ( 12 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.

LREF = 474.8000 IN.

BREF = 936.6800 IN.

SCALE = .0300

XMRP = 1076.6800 IN. X0

YMRP = .0000 IN. Y0

ZMRP = 375.0000 IN. Z0

BETA

GRADIENT

RUDDER = 10.000

BDFLAP = -11.700

ELVN-R = 10.000

SPDBRK = .000

ELVN-L = -10.000

MACH = 1.250

RUN NO.		455/ 0	RN/L = 3.03		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP205	CP2	CP3
-4.001	.172	-38410	-38460	-38870	-35440	-41710
	GRADIENT	.00000	.00000	.00000	.00000	.00000

RUN NO.		456/ 0	RN/L = 3.03		GRADIENT INTERVAL = -5.00/ 5.00	
ALPHA	BETA	CP200	CP201	CP205	CP2	CP3
.004	.171	-39340	-38700	-39530	-37550	-41030
	GRADIENT	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

CP4	CP5	CP6
-33580	-35320	-40510
.00000	.00000	.00000

CP4	CP5	CP6
-36110	-36370	-47330
.00000	-35710	-41690
.00000	-35790	-39490
.00000	.00071	.00965

CP4	CP5	CP6
-37420	-37540	-43910
.00000	.00000	.00000

PARAMETRIC DATA

CP4	CP5	CP6
-38590	-39830	-43960
.00000	.00000	.00000

CP4	CP5	CP6
-37500	-39900	-45310
.00000	.00000	.00000

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORBITER

(RE8Y82) (06 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.250

RUN NO. 457/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.910	-3.880	-38060	-38980	-39200	-39460	-35980	-38370	-41530	-37160	-39290	-52910
3.950	.192	-37820	-38320	-38250	-38640	-35950	-37090	-39510	-37050	-38740	-46790
3.915	4.246	-37980	-33300	-39370	-38900	-35120	-36740	-39880	-38370	-37560	-48430
	GRADIENT	.00010	.00071	.00102	.00069	.00106	.00201	.00203	-0.0112	.00213	.00552

RUN NO. 458/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
7.875	.170	-37390	-37780	-37860	-37680	-34990	-35930	-38780	-36020	-37710	-47910
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 459/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.893	-3.862	-39970	-40430	-40550	-42680	-37340	-39630	-42000	-39560	-38760	-50770
11.948	.178	-37730	-40320	-39010	-41750	-35670	-38950	-40520	-37550	-38880	-45520
11.969	4.251	-40290	-40540	-40800	-40760	-37000	-39710	-40120	-36670	-33360	-49870
	GRADIENT	-0.00040	-0.00014	-0.00031	.00237	.00041	-0.00010	.00232	.00109	.00051	.00098

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.100

RUN NO. 460/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
-3.943	.171	-39970	-40140	-40940	-41010	-37540	-40150	-41650	-39260	-41460	-53900
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 461/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
.065	.171	-39210	-39090	-39430	-39890	-36560	-38780	-40470	-38250	-39720	-54470
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 11-073(0A148) -140A/B/C ORBITER

(RE8Y93) ( 12 AUG 75 )



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(RE8Y83) ( 12 AUG 75 )

### PARAMETRIC DATA

RUDDER =	10.000	SPOBRK =	.000
BDFLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	1.100

RUN NO. 462/ 0 RRV/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
3.859	-3.876	-4.0010	-4.0470	-4.0780	-4.1020	-3.7120	-3.9460	-4.2210	-3.9150	-3.9560	-5.7500
3.908	.189	-3.3200	-3.3820	-3.3840	-3.38830	-3.5820	-3.7510	-3.9370	-3.7080	-3.6620	-5.4910
3.913	4.243	-3.8690	-3.8770	-3.8740	-3.9130	-3.6460	-3.8880	-4.0170	-3.7530	-3.7450	-5.3130
	GRADIENT	.00163	.00233	.00251	.00233	.00081	.00072	.00251	.00200	.00260	.00538

[illegible]

ALPHA	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
11.886	-3.856	-4.2280	-4.4370	-4.4180	-4.4690	-3.9050	-4.3100	-4.5520	-4.1793	-4.0260	-5.5930
11.964	.179	-4.1630	-4.2290	-4.2070	-4.3600	-3.8700	-4.1560	-4.3950	-4.0320	-4.0540	-5.8830
11.963	4.251	-4.1210	-4.1350	-4.1150	-4.1980	-3.8330	-4.0970	-4.2490	-3.9400	-3.8620	-5.5020
	GRADIENT	.00132	.00372	.00330	.00334	.00089	.00263	.00374	.00295	.00203	.00114

### PARAMETRIC DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1076.6800	IN.	X0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN.	Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	Z0
SCALE	=	.0300						

RUN NO. 465/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RUN NO. 466/ 0      RN/L = 3.59      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

AMES 11-073(OA148) -140A/B/C ORBITER

### PARAMETRIC DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1076.6800	IN.	X0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN.	Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	Z0
SCALE	=	.0300						

RUN NO. 465/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RUN NO. 466/ 0      RN/L = 3.59      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(OA148) -140A/B/C ORBITER

(REBYB4) ( 12 AUG 75 )

REFERENCE DATA

SPEF	=	2690.0000	SO.FT.	XMRP	=	1076.6800	IN. X0
LPEF	=	474.8000	IN.	YMRP	=	.0000	IN. Y0
BREF	=	936.6500	IN.	ZMRP	=	375.0000	IN. Z0
SCALE	=	.0300					

### PARAMETRIC DATA

RUDDER =	10.000	SPDRK =	.000
80FLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	.900

RUN NO. 467/ 0      RN/L = 3.58      GRADIENT INTERVAL = -5.00/ 5.00

	BETA	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
ALPHA	-3.685	-28090	-26550	-29370	-27230	-21240	-25780	-23940	-23510	-21530	-29890
	4.032	-28090	-25070	-28020	-27420	-2180	-25120	-23430	-23100	-20570	-36440
	3.995	-2450	-24310	-28570	-24570	-2180	-23970	-23500	-22820	-22090	-35310
GRADIENT	0.0735	0.0275	0.0363	0.0363	0.0325	0.0070	0.0225	0.0269	0.0269	0.0269	0.0265

RUN NO. 469/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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RUN NO. 469/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

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[illegible]

AMES 11-073(OA148) -140A/B/C ORBITER

(REBYS) ( 12 AUG 75 )

REFERENCE DATA

SREF	=	2690.0000	50.FT.	XMRP	=	1076.6800	IN.	XO
LRFE	=	474.6000	IN.	YMRP	=	.0000	IN.	YO
SREF	=	335.5900	IN.	ZMRP	=	375.0000	IN.	ZO
SCALE	=	.0300						

### PARAMETRIC DATA

RUDDER =	10.000	SPDRX =	.000
BDFLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	.600

RUN NO. 470/ 0      RV/L = 4.82      GRADIENT INTERVAL = -5.00/ 5.00

	CP200	CP201	CP204	CP205	CP1	CP2	CP3	CP4	CP5	CP6
ALPHA										
BETA										
GRADIENT	.164									
INTERVAL										
CP200	-27792									
CP201	.00000	-27970								
CP204	.00000	.00000	-30740							
CP205	.00000	.00000	-29170	-21380						
CP1	.00000	.00000	.00000	.00000						
CP2	.00000	.00000	-28810							
CP3	.00000	.00000	.00000							
CP4	.00000	.00000	-26630							
CP5	.00000	.00000	.00000							
CP6	.00000	.00000	.00000							

```

RUN NO. 471/ 0  RV/L = 4.63  GRADIENT INTERVAL = -5.00/ 5.00

```

[illegible]

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORBITER

(REBYES) ( 12 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUN NO. 472/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA 4.077 BETA .160  
 GRADIENT .00000 CP200 -25990 CP201 -27230 CP204 -29530 CP205 -27730 CP1 -21480 CP2 -26630 CP3 -30270 CP4 -24090 CP5 -22060 CP6 -36240  
 GRADIENT .00000 CP200 .00000 CP201 .00000 CP204 .00000 CP205 .00000 CP1 .00000 CP2 .00000 CP3 .00000 CP4 .00000 CP5 .00000 CP6 .00000

RUN NO. 473/ 1 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA 8.047 BETA .158  
 GRADIENT .00000 CP200 -25260 CP201 -26060 CP204 -29140 CP205 -27600 CP1 -21270 CP2 -26360 CP3 -29770 CP4 -22760 CP5 -21300 CP6 -36120  
 GRADIENT .00000 CP200 .00000 CP201 .00000 CP204 .00000 CP205 .00000 CP1 .00000 CP2 .00000 CP3 .00000 CP4 .00000 CP5 .00000 CP6 .00000

RUN NO. 474/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA 12.046 BETA .156  
 GRADIENT .00000 CP200 -28540 CP201 -27230 CP204 -27890 CP205 -27910 CP1 -21170 CP2 -26020 CP3 -30520 CP4 -23510 CP5 -20290 CP6 -35390  
 GRADIENT .00000 CP200 .00000 CP201 .00000 CP204 .00000 CP205 .00000 CP1 .00000 CP2 .00000 CP3 .00000 CP4 .00000 CP5 .00000 CP6 .00000

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KEEC01) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA -4.000  
 GRADIENT .00000 CA .18287 CN -20854 CLM .06270 CY .08115 CYN -.00545 CBL .00225 CAF .11715 CFS -23266 CLMF .03305  
 GRADIENT .00000 CA .18516 CN -21369 CLM .06732 CY .00284 CYN -.00024 CBL -.00003 CAF .12012 CFS -23752 CLMF .03763  
 GRADIENT .00000 CA .18303 CN -21149 CLM .06373 CY -.07752 CYN .00618 CBL -.00516 CAF .11940 CFS -23505 CLMF .03360  
 GRADIENT .00000 CA .00002 CN -.00036 CLM .00013 CY -.01983 CYN .00158 CBL -.00105 CAF .00028 CFS -.50030 CLMF .00009

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

## PARAMETRIC DATA

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(RECD) 12 FEB 76

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 935.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000  
 BDFLP = 16.300  
 ELVR-R = .000  
 ELVR-L = 1.400  
 ELVR = 1.400

## PARAMETRIC DATA

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CEL	CAF	CVE	CLVF
.17908	.00494	.02035	.07422	-.00436	.00355	.00000	.00000	.00000
.16086	.00375	.02321	.00267	-.00008	-.00151	.00000	.00000	.00000
.16023	.00307	.02089	-.00335	.00519	-.00000	.00000	.00000	.00000
.00014	-.00023	.00004	-.01602	.00127	-.00122	.00000	.00000	.00000

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CEL	CAF	CVE	CLVF
.17322	.01856	.01935	.06892	-.00335	.00355	.00000	.00000	.00000
.17324	.01478	-.01493	.00334	.00000	-.00151	.00000	.00000	.00000
.17338	.01474	-.01754	-.06249	.00335	.00355	.00000	.00000	.00000
.00008	-.00049	.00010	-.01619	.00335	-.00122	.00000	.00000	.00000

ALPHA = 6.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CEL	CAF	CVE	CLVF
.16715	.01922	.04572	.06156	-.00116	.00355	.00000	.00000	.00000
.16715	.01260	-.04345	.00170	.00000	-.00151	.00000	.00000	.00000
.16711	.01936	-.04783	-.05786	.00335	.00355	.00000	.00000	.00000
-.00000	-.00006	-.00087	-.01493	.00335	-.00122	.00000	.00000	.00000

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CEL	CAF	CVE	CLVF
.16765	.01875	.07071	.06313	-.00365	.00355	.00000	.00000	.00000
.16734	.02111	.07108	.00229	-.00001	-.00151	.00000	.00000	.00000
.16452	.01997	-.07084	-.06310	.00319	.00355	.00000	.00000	.00000
.00011	.00015	-.00002	-.01652	.00073	-.00122	.00000	.00000	.00000

ALPHA = 18.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CEL	CAF	CVE	CLVF
.09326	.01908	.03951	.05350	.00333	.00355	.00000	.00000	.00000
.09326	.02283	-.05225	.00241	.00016	-.00151	.00000	.00000	.00000
.09323	.01947	-.04014	-.03011	-.00157	.00355	.00000	.00000	.00000
.00021	.00006	.00007	-.01546	.00151	-.00122	.00000	.00000	.00000

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8002) ( 10 FEB 76 )

## REFERENCE DATA

3	=	290.000	50. FT.
3	=	474.800	IN.
3	=	936.600	IN.
SCALE	=	.0300	

SEEF =	2593.0000	SQ. FT.	XMPR =	1076.6800	IN. YO
SEEF =	474.8000	IN.	YMPR =	.0000	IN. YO
SEEF =	935.6800	IN.	ZMPR =	375.0000	IN. ZO

RUDDER =	.000	SPCBRK =	55.000
BDFLAP =	16.300	ELVN-L =	.000
ELVN-R =	.000	MACH =	1.250

### PARAMETRIC DATA

RN/L =	3.01	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

A\_PWA = -4.000  
BETA

BETA	CA
-4.000	.18437
.000	.18506
4.000	.18472
GRACIENT	.00004

CAF	CNF	CLMF
.11160	-.27234	.12188
.11507	-.27929	.12617
.11571	-.27436	.12199
.00051	-.00010	.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

```
ALPHA =
      - .000
      BETA
      -4.000
      .000
      4.000
      GRADIENT
```

BETA	CA
-4.000	.18334
.000	.18344
4.000	.18406
GRADIENT	.00009

CAF	CNF	CLMF
.11248	-.02521	-.06546
.11555	-.02806	-.06918
.11672	-.02784	-.06820
.00953	-.00033	-.00009

RN/L = 3.01 CRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

BETA	CA
-4.000	.17954
.000	.18115
4.000	.19037
GRADIENT	.00010

CAF	CNF	CLMF
.10841	.20755	.02138
.11180	.20555	.02273
.11195	.20540	.02085
.00844	-.00027	-.00007

RN/L =	3.01	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = 8.000  
BETA  
-4.000  
-4.000  
4.000  
GRADIENT

BETA	-4.000	CA	.17471
	.000		.17524
	4.000		.17547
GRADIENT			.00010

CAF	CNF	CLMF
.10014	.42885	-.01010
.10170	.42042	-.00769
.10321	.42216	-.00388
.00038	-.00084	.00015

RN/L =	3.02	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = 12.000  
BETA  
-4.000  
- .000  
4.000  
GRADIENT

12.000	BETA	CA
-4.000	-4.000	.16857
.000	.000	.16951
4.000	4.000	.16969
GRAC:ENT		00014

CAF	CNF	CLNF
.09150	.64142	-.02998
.09236	.64213	-.02983
.09355	.63956	-.02359
.09225	-.00023	.00012

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE8003) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = .000 SFCBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

## PARAMETRIC DATA

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .17911  
 .18063  
 .18010  
 .00012

CN .28724  
 .29303  
 .29086  
 .00045

CLM .09780  
 .09884  
 .09681  
 -.00012

CY .07681  
 .00308  
 .07335  
 -.01877

CYN -.00668  
 -.00044  
 .00601  
 .00159

CBL -.00133  
 .00343  
 -.00491  
 -.00045

CAF .10033  
 .10399  
 .10340  
 .00038

CNF -.31653  
 -.32162  
 -.31987  
 -.00042

CLMF .13472  
 .13499  
 .13370  
 -.00013

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .17838  
 .17921  
 .17887  
 .00006

CN .01654  
 .02295  
 .01687  
 .00029

CLM .04467  
 .05062  
 .04456  
 .00004

CY .07132  
 .00319  
 -.06840  
 -.01721

CYN -.00634  
 -.00051  
 .00557  
 .00149

CBL .00532  
 -.00281  
 -.01071  
 -.00200

CAF .10058  
 .10263  
 .10471  
 .00052

CNF -.04557  
 -.05141  
 -.04562  
 -.00013

CLMF .08150  
 .08559  
 .08075  
 -.00009

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .17957  
 .18136  
 .18043  
 .00009

CN .24546  
 .24508  
 .24556  
 .00001

CLM .00201  
 .00096  
 .00449  
 .00031

CY .06903  
 .00364  
 -.06238  
 -.01643

CYN -.00628  
 -.00052  
 .00514  
 .00143

CBL .00515  
 -.00271  
 -.01084  
 -.00200

CAF .10106  
 .10266  
 .10331  
 .00028

CNF .21630  
 .21585  
 .21571  
 .00005

CLMF .03491  
 .03514  
 .03272  
 -.00027

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .17848  
 .17635  
 .17834  
 -.00002

CN .46742  
 .46528  
 .46516  
 -.00028

CLM .02743  
 .03060  
 .02997  
 .00032

CY .07115  
 .00389  
 -.06310  
 -.01716

CYN -.00808  
 -.00085  
 .00714  
 .00190

CBL .00537  
 -.00251  
 -.00955  
 -.00187

CAF .09399  
 .09441  
 .09518  
 .00027

CNF .43634  
 .43496  
 .43436  
 -.00025

CLMF .01190  
 .00764  
 .00555  
 -.00029

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .17204  
 .16969  
 .17150  
 -.00027

CN .68272  
 .69478  
 .68123  
 -.00019

CLM .04448  
 .04570  
 .04538  
 .00011

CY .06349  
 -.00163  
 -.06966  
 -.01564

CYN -.00549  
 .00135  
 .00905  
 .00169

CBL .00384  
 -.00091  
 -.01107  
 -.00261

CAF .08513  
 .08727  
 .08839  
 .00041

CNF .65027  
 .65396  
 .64926  
 -.00013

CLMF -.00342  
 -.00717  
 -.00461  
 -.00015

DATE 08 MAY 76

TABULATED FORCE DATA - 04148 ( AMES 11-073-1 )

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04148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED (KE9004) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = 0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .10158  
 CN -.25809  
 CLM .04173  
 CY .09537  
 CYN -.01317  
 CBL -.00339  
 CAF .04557  
 CNF -.27921  
 CLMF .06691

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA .10549  
 CN -.02047  
 CLM .02609  
 CY .09334  
 CYN -.01318  
 CBL .00141  
 CAF .04837  
 CNF -.04183  
 CLMF .05323

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .10486  
 CN .20387  
 CLM .01498  
 CY .09148  
 CYN -.01260  
 CBL .00165  
 CAF .04586  
 CNF .18222  
 CLMF .04206

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA .10199  
 CN .40739  
 CLM .00510  
 CY .08120  
 CYN -.00944  
 CBL .00529  
 CAF .04527  
 CNF .38560  
 CLMF .03.22

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA .02331  
 CN .59975  
 CLM -.00272  
 CY .08005  
 CYN -.00745  
 CBL .00796  
 CAF .04399  
 CNF .57897  
 CLMF .02328

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8005) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPDRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA .07687  
 .03662  
 .03324  
 .09053  
 .07555  
 -.00001

CN -.19034  
 -.20206  
 -.20873  
 -.20321  
 -.15006  
 -.00014

CLM .01462  
 .01985  
 .02321  
 .01849  
 .01421  
 -.00017

CY .15623  
 .07755  
 .00288  
 -.07241  
 -.15253  
 -.01874

CYN -.01607  
 -.00664  
 -.00012  
 .00606  
 .01513  
 .00159

CBL .00070  
 -.00255  
 -.00331  
 -.00324  
 -.00528  
 -.00009

CAF .02549  
 .03108  
 .03280  
 .02987  
 .02667  
 -.00015

CNF -.20892  
 -.22023  
 -.22715  
 -.22178  
 -.20847  
 -.00019

CLMF .03768  
 .04252  
 .04601  
 .04167  
 .03763  
 -.00011

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA .06466  
 .06774  
 .08971  
 .08795  
 .08280  
 .00003

CN -.00597  
 -.01310  
 -.01584  
 -.01485  
 -.00335  
 -.00022

CLM .01354  
 .01835  
 .02187  
 .01691  
 .01181  
 -.00018

CY .15264  
 .07693  
 .00363  
 -.07118  
 -.15021  
 -.01851

CYN -.01618  
 -.00681  
 -.00021  
 .00628  
 .01543  
 .00164

CBL .00530  
 .00020  
 -.00301  
 -.00571  
 -.01007  
 -.00074

CAF .03252  
 .03740  
 .04017  
 .03842  
 .03280  
 .00013

CNF -.02483  
 -.03146  
 -.03811  
 -.03321  
 -.02214  
 -.00022

CLMF .03675  
 .04129  
 .04442  
 .03933  
 .03554  
 -.00017

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA .07762  
 .02023  
 .06083  
 .06021  
 .07522  
 -.00000

CN .18042  
 .18044  
 .17093  
 .18002  
 .18974  
 -.00005

CLM .01217  
 .01593  
 .02072  
 .01481  
 .01013  
 -.00014

CY .14999  
 .07643  
 .00460  
 -.06935  
 -.14914  
 -.01822

CYN -.01667  
 -.00701  
 -.00042  
 .00628  
 .01585  
 .00166

CBL .00984  
 .00210  
 -.00324  
 -.00815  
 -.01485  
 -.00128

CAF .02404  
 .02958  
 .03163  
 .03084  
 .02660  
 .00015

CNF .16090  
 .16187  
 .15280  
 .16148  
 .17150  
 -.00005

CLMF .03604  
 .03694  
 .04355  
 .03532  
 .03337  
 -.00011

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA .05653  
 .05911  
 .05827  
 .05785  
 .05415  
 -.00016

CN .39276  
 .37591  
 .37619  
 .39301  
 .39135  
 .00039

CLM .00789  
 .01302  
 .01681  
 .01106  
 .00685  
 -.00024

CY .14402  
 .07248  
 .00475  
 -.06599  
 -.14490  
 -.01731

CYN -.01662  
 -.00660  
 -.00030  
 .00619  
 .01583  
 .00160

CBL .01490  
 .00427  
 -.00345  
 -.01070  
 -.02020  
 -.00187

CAF .00220  
 .00702  
 .01157  
 .01025  
 .00528  
 .00040

CNF .36299  
 .36082  
 .35853  
 .36508  
 .37266  
 .00053

CLMF .03179  
 .03570  
 .03582  
 .03365  
 .03076  
 -.00336



DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(KE8005) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.02794	.60351	.00228	.13689	-.01608	.02108	-.02553	-.58401	.02582	
-4.000	.03070	.59120	.01170	.06505	-.00477	.00836	-.01883	.57286	.03408	
.000	.03112	.58509	.01731	.00166	.00074	-.00300	-.01571	.56770	.03917	
4.000	.02898	.59701	.00973	-.06394	.00600	-.01368	-.01644	.57929	.03224	
8.000	.02619	.61422	.00037	-.14094	.01573	-.02579	-.01962	.56636	.02314	
GRADIENT	-.00021	.00073	-.00025	-.01612	.00135	-.00276	.00030	.00080	-.00023	

(KE8006) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.08237	-.16943	-.00060	.15601	-.01610	.00074	.02410	-.18918	.02469	
-4.000	.08678	-.18106	.00524	.07688	-.00655	-.00233	.03073	-.20008	.02971	
.000	.08953	-.18963	.00311	.00145	-.00002	-.00310	.03200	-.20917	.03319	
4.000	.08599	-.18331	.00397	-.07355	.00625	-.00324	.02986	-.20285	.02500	
8.000	.08132	-.17070	-.00057	-.15342	.01543	-.00522	.02673	-.18987	.02441	
GRADIENT	.00003	-.00028	-.00017	-.01880	.00160	-.00011	-.00011	-.00035	-.00009	

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.03052	.01411	-.00157	.15248	-.01659	.00578	.03121	-.00586	.02332	
-4.000	.03311	.00678	.00357	.07604	-.00671	.00019	.03557	-.01266	.02657	
.000	.09525	.00061	.00710	.00298	-.00021	-.00291	.03923	-.01841	.03119	
4.000	.09397	.00536	.00223	-.07189	.00646	-.00567	.03779	-.01419	.02769	
8.000	.02926	.01675	-.00275	-.15139	.01600	-.01020	.03176	-.00339	.02321	
GRADIENT	.00011	-.00018	-.00017	-.01849	.00165	-.00073	.00028	-.00019	-.00012	

DATE 08 MAY 76

TABULATED FORCE DATA - OAI48 ( AMES 11-073-1 )

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OAI48 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8006) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .500

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000		CA		CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	-8.000	.08298	.20207	-.00235	.15008	-.01710	.01014	.02418	.18212	.02302	
	-4.000	.03611	.20214	-.00096	.07606	-.00692	.00221	.02559	.18264	.02591	
	.000	.08661	.19309	-.00478	.00379	-.00032	-.00324	.03147	.17400	.02928	
	4.000	.08666	.20137	-.00053	-.06895	.00647	-.00815	.02942	.18154	.02434	
	8.000	.08057	.21040	-.00446	-.14924	.01625	-.01494	.02657	.19129	.02070	
GRADIENT		.00007	-.00010	-.00019	-.01813	.00167	-.00130	.00010	-.00014	-.00012	

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000		CA		CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	-8.000	.06235	.40482	-.00675	.14482	-.01737	.01523	.00247	.38455	.01885	
	-4.000	.06443	.40151	-.00260	.07237	-.00662	.00438	.00866	.38244	.02165	
	.000	.06411	.40129	-.00028	.00382	-.00029	-.00346	.01094	.38278	.02395	
	4.000	.06410	.40513	-.00462	-.06642	.00638	-.01050	.00843	.38685	.02023	
	8.000	.05910	.41258	-.00715	-.14575	.01631	-.02027	.00570	.39330	.01830	
GRADIENT		-.00004	.00058	-.00025	-.01735	.00162	-.00186	-.00003	.00055	-.00018	

RN/L = 3.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000		CA		CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	-8.000	.03377	.62142	-.01250	.13717	-.01622	.02172	-.02477	.60152	.01226	
	-4.000	.03596	.61598	-.00422	.06579	-.00468	.00855	-.01914	.59739	.01918	
	.000	.03678	.60792	.00112	.00209	.00081	-.00253	-.01552	.58558	.02461	
	4.000	.03501	.61476	-.00344	-.06653	.00730	-.01389	-.01625	.59647	.02014	
	8.000	.03143	.63339	-.01476	-.14077	.01579	-.02592	-.01982	.61471	.00963	
GRADIENT		-.00012	-.00015	.00010	-.01655	.00150	-.00280	.00036	-.00012	.00012	

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8007) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.6000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .10839  
 CN -.23989  
 CLM .02524  
 CY .09359  
 CYN -.01257  
 CBL -.00326

CA .10839  
 CN -.23989  
 CLM .02524  
 CY .09359  
 CYN -.01257  
 CBL -.00326

CA .10839  
 CN -.23989  
 CLM .02524  
 CY .09359  
 CYN -.01257  
 CBL -.00326

CA .10839  
 CN -.23989  
 CLM .02524  
 CY .09359  
 CYN -.01257  
 CBL -.00326

CA .10839  
 CN -.23989  
 CLM .02524  
 CY .09359  
 CYN -.01257  
 CBL -.00326

CA .10839  
 CN -.23989  
 CLM .02524  
 CY .09359  
 CYN -.01257  
 CBL -.00326

CA .10839  
 CN -.23989  
 CLM .02524  
 CY .09359  
 CYN -.01257  
 CBL -.00326

CA .10839  
 CN -.23989  
 CLM .02524  
 CY .09359  
 CYN -.01257  
 CBL -.00326

CA .10839  
 CN -.23989  
 CLM .02524  
 CY .09359  
 CYN -.01257  
 CBL -.00326

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA .11266  
 CN -.00269  
 CLM .00929  
 CY .09080  
 CYN -.01279  
 CBL .00140

CA .11266  
 CN -.00269  
 CLM .00929  
 CY .09080  
 CYN -.01279  
 CBL .00140

CA .11266  
 CN -.00269  
 CLM .00929  
 CY .09080  
 CYN -.01279  
 CBL .00140

CA .11266  
 CN -.00269  
 CLM .00929  
 CY .09080  
 CYN -.01279  
 CBL .00140

CA .11266  
 CN -.00269  
 CLM .00929  
 CY .09080  
 CYN -.01279  
 CBL .00140

CA .11266  
 CN -.00269  
 CLM .00929  
 CY .09080  
 CYN -.01279  
 CBL .00140

CA .11266  
 CN -.00269  
 CLM .00929  
 CY .09080  
 CYN -.01279  
 CBL .00140

CA .11266  
 CN -.00269  
 CLM .00929  
 CY .09080  
 CYN -.01279  
 CBL .00140

CA .11266  
 CN -.00269  
 CLM .00929  
 CY .09080  
 CYN -.01279  
 CBL .00140

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .11082  
 CN .21828  
 CLM -.00089  
 CY .09084  
 CYN -.01247  
 CBL .00143

CA .11082  
 CN .21828  
 CLM -.00089  
 CY .09084  
 CYN -.01247  
 CBL .00143

CA .11082  
 CN .21828  
 CLM -.00089  
 CY .09084  
 CYN -.01247  
 CBL .00143

CA .11082  
 CN .21828  
 CLM -.00089  
 CY .09084  
 CYN -.01247  
 CBL .00143

CA .11082  
 CN .21828  
 CLM -.00089  
 CY .09084  
 CYN -.01247  
 CBL .00143

CA .11082  
 CN .21828  
 CLM -.00089  
 CY .09084  
 CYN -.01247  
 CBL .00143

CA .11082  
 CN .21828  
 CLM -.00089  
 CY .09084  
 CYN -.01247  
 CBL .00143

CA .11082  
 CN .21828  
 CLM -.00089  
 CY .09084  
 CYN -.01247  
 CBL .00143

CA .11082  
 CN .21828  
 CLM -.00089  
 CY .09084  
 CYN -.01247  
 CBL .00143

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA .10948  
 CN .42631  
 CLM -.01259  
 CY .08257  
 CYN -.00980  
 CBL .00525

CA .10948  
 CN .42631  
 CLM -.01259  
 CY .08257  
 CYN -.00980  
 CBL .00525

CA .10948  
 CN .42631  
 CLM -.01259  
 CY .08257  
 CYN -.00980  
 CBL .00525

CA .10948  
 CN .42631  
 CLM -.01259  
 CY .08257  
 CYN -.00980  
 CBL .00525

CA .10948  
 CN .42631  
 CLM -.01259  
 CY .08257  
 CYN -.00980  
 CBL .00525

CA .10948  
 CN .42631  
 CLM -.01259  
 CY .08257  
 CYN -.00980  
 CBL .00525

CA .10948  
 CN .42631  
 CLM -.01259  
 CY .08257  
 CYN -.00980  
 CBL .00525

CA .10948  
 CN .42631  
 CLM -.01259  
 CY .08257  
 CYN -.00980  
 CBL .00525

CA .10948  
 CN .42631  
 CLM -.01259  
 CY .08257  
 CYN -.00980  
 CBL .00525

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA .10977  
 CN .62833  
 CLM -.02421  
 CY .08352  
 CYN -.00838  
 CBL .00817

CA .10977  
 CN .62833  
 CLM -.02421  
 CY .08352  
 CYN -.00838  
 CBL .00817

CA .10977  
 CN .62833  
 CLM -.02421  
 CY .08352  
 CYN -.00838  
 CBL .00817

CA .10977  
 CN .62833  
 CLM -.02421  
 CY .08352  
 CYN -.00838  
 CBL .00817

CA .10977  
 CN .62833  
 CLM -.02421  
 CY .08352  
 CYN -.00838  
 CBL .00817

CA .10977  
 CN .62833  
 CLM -.02421  
 CY .08352  
 CYN -.00838  
 CBL .00817

CA .10977  
 CN .62833  
 CLM -.02421  
 CY .08352  
 CYN -.00838  
 CBL .00817

CA .10977  
 CN .62833  
 CLM -.02421  
 CY .08352  
 CYN -.00838  
 CBL .00817

CA .10977  
 CN .62833  
 CLM -.02421  
 CY .08352  
 CYN -.00838  
 CBL .00817

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE8008) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2590.000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA								
-4.000	.21163	.08974	.07870	-.00534	.00130	.14375	-.24413	.11939
.000	.21463	.09562	.00158	-.00048	-.00189	.14659	-.25057	.12545
4.000	.21192	.09150	-.07535	.00403	-.00464	.14478	-.24582	.12139
GRADIENT	.00004	.00022	-.01926	.00117	-.00074	.00012	-.00021	.00025

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA								
-4.000	.21010	.04694	.07288	-.00399	.00271	.14132	-.03020	.07577
.000	.21147	.04999	.00195	-.00024	-.00144	.14412	-.03171	.09011
4.000	.21067	.04647	-.06930	.00350	-.00548	.14353	-.02877	.07675
GRADIENT	.0007	-.00005	-.01777	.00094	-.00102	.00028	.00018	-.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA								
-4.000	.20243	.06651	.06645	-.00205	.00446	.13590	.18215	.03677
.000	.20317	.00979	.00170	.00002	-.00138	.13772	.17982	.04016
4.000	.20410	.06667	-.06293	.00213	-.00736	.13617	.18469	.02571
GRADIENT	.00021	-.00011	-.01617	.00052	-.00148	.00003	.00032	-.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA								
-4.000	.19525	.02419	.06044	-.00023	.00399	.12502	.38748	.00792
.000	.19612	.02252	.00142	-.00001	-.00146	.12622	.38188	.00944
4.000	.19621	.02624	-.05767	.00028	-.00887	.12675	.38789	.00597
GRADIENT	.00012	-.00026	-.01476	.00006	-.00161	.00022	.00005	-.00026

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA								
-4.000	.16384	.05200	.06777	-.00172	.00376	.11650	.56789	-.01855
.000	.19285	.03218	.00151	-.00025	-.00091	.11753	.53791	-.01633
4.000	.19206	.05289	-.06330	.00110	-.00587	.11742	.59602	-.01942
GRADIENT	.00028	-.00014	-.01638	.00035	-.00120	.00012	-.00023	.00005

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED (KE8008) ( 10 FEB 76 )

REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

RUDDER = .000  
BDFLAP = 22.500  
ELVN-R = .000

SPOBRK = 85.000  
ELVN-L = .000  
MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA  
.18440  
.18666  
.18619  
.00022

CN  
81354  
.81692  
.81175  
-.00022

CLM  
-.07255  
-.07505  
-.07364  
-.00014

CY  
.06371  
.00236  
-.06079  
-.01556

CYN  
.00274  
-.00011  
-.00238  
-.00064

CBL  
.09610  
-.00056  
-.00697  
-.00162

CAF  
.10815  
.10956  
.10982  
.00021

CNF  
.78721  
.79222  
.78501  
-.00028

CLMF  
-.03801  
-.04019  
-.03955  
-.00007

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE8009) ( 10 FEB 76 )

REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

RUDDER = .000  
BDFLAP = 22.500  
ELVN-R = .000

SPOBRK = 85.000  
ELVN-L = .000  
MACH = 1.250

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA  
.21216  
.21343  
.21194  
-.00003

CN  
-.26210  
-.26599  
-.26286  
-.00009

CLM  
.11599  
.12197  
.11669  
.00009

CY  
.07667  
.00179  
-.07278  
-.01868

CYN  
-.00585  
-.00059  
.00413  
.00125

CBL  
.00102  
-.00257  
-.00535  
-.00080

CAF  
.13649  
.14031  
.13962  
.00039

CNF  
-.28742  
-.29362  
-.28779  
-.00005

CLMF  
.14861  
.15370  
.14935  
.00009

ALPHA = .000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA  
.21237  
.21288  
.21311  
.00009

CN  
-.01125  
-.01406  
-.01101  
.00003

CLM  
.05773  
.05032  
.05777  
.00000

CY  
.07069  
.00173  
-.06802  
-.01734

CYN  
-.00451  
-.00035  
.00350  
.00100

CBL  
.00291  
-.00193  
-.00636  
-.00116

CAF  
.13679  
.13900  
-.03662  
.00040

CNF  
-.03693  
-.03950  
-.03998  
.00004

CLMF  
.09085  
.09333  
.09130  
.00005

DATE 08 MAY 76

(KEB009) ( 10 FEB 76 )

TABULATED FORCE DATA - OAI48 ( AMES 11-073-1 )

OAI48 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.5800 IN. XO RUDDER = .000 SPDEF = 85.000  
LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 22.500 ELVN = .000  
BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO ELVN-R = .000 MACH = 1.250  
SCALE = .0300

PARAMETRIC DATA

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
CA .20781 CN .22291 CLM .00338 CY .06525 CYN -.00252 CBL .00413 CAF .13179 CNF .19662 CLMF .04362  
C .20737 CN .22413 CLM .00338 CY .00217 CYN -.00009 CBL -.00179 CAF .13049 CNF .19732 CLMF .04178  
C .20922 CN .22769 CLM .00722 CY -.03174 CYN .00215 CBL -.00780 CAF .13376 CNF .20112 CLMF .04214  
GRADIENT .00016 .00060 -.00027 -.01597 .00058 .00025 .00056 -.00018

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 3.000  
BETA  
-4.000  
CA .20076 CN .44755 CLM -.02597 CY .06181 CYN -.00142 CBL .00354 CAF .12105 CNF .41990 CLMF .00940  
C .18753 CN .45227 CLM -.03304 CY .00304 CYN -.00034 CBL -.00166 CAF .11605 CNF .42411 CLMF .00394  
C .20203 CN .45169 CLM -.02849 CY -.05797 CYN .00111 CBL -.00787 CAF .12088 CNF .42346 CLMF .00872  
GRADIENT .00016 .00051 .00019 -.01497 .00032 -.00002 -.00045 -.00008

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
CA .19463 CN .66558 CLM -.05202 CY .06432 CYN -.00202 CBL .00698 CAF .11014 CNF .63646 CLMF .01376  
C .19160 CN .67339 CLM -.05741 CY .00105 CYN .00079 CBL .00074 CAF .10705 CNF .64411 CLMF .01920  
C .19509 CN .67135 CLM -.05415 CY -.06059 CYN .00162 CBL -.00858 CAF .11084 CNF .64175 CLMF .01526  
GRADIENT .00006 .00072 .00027 -.01251 .00045 .00009 .00066 -.00019

DATE 09 MAY 76

TABULATED FORCE DATA - CA148 ( AMES 11-073-1 )

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OAI48 -140 A/B/C/R CAVITY .. BASE P.. ADJUSTED

(KE8010) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2650.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .20066  
 .20147  
 .20000  
 -.00008  
 CLM .11021  
 .11580  
 .11148  
 .00016  
 CN -.29172  
 -.30333  
 -.29800  
 .00079  
 CY .07435  
 .00098  
 -.07331  
 -.01846  
 CYN -.00594  
 -.00060  
 .00450  
 .00130  
 CBL -.00219  
 -.00327  
 -.00348  
 -.00016  
 CAF .11720  
 .12120  
 .11899  
 .00022  
 CNF -.31994  
 -.33090  
 -.32638  
 -.00080  
 CLMF .14647  
 .15161  
 .14845  
 .00025

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .19848  
 .19635  
 .19832  
 -.00002  
 CLM .05759  
 .06185  
 .05717  
 -.00005  
 CN -.02214  
 -.02879  
 -.02229  
 .00002  
 CY .06532  
 .00196  
 -.06445  
 -.01622  
 CYN -.00450  
 -.00065  
 .00358  
 .00101  
 CBL .00416  
 -.00275  
 -.00934  
 -.00169  
 CAF .11750  
 .11806  
 .12057  
 .00038  
 CNF -.04982  
 -.05585  
 -.04946  
 .00004  
 CLMF .09346  
 .08699  
 .09288  
 -.00007

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .20191  
 .19952  
 .20238  
 .00006  
 CLM .00955  
 .00771  
 .00621  
 -.00042  
 CN .24002  
 .24077  
 .24626  
 .00078  
 CY .06449  
 .00226  
 -.06069  
 -.01565  
 CYN -.00432  
 -.00064  
 .00303  
 .00092  
 CBL .00413  
 -.00235  
 -.00922  
 -.00167  
 CAF .11882  
 .11766  
 .11874  
 -.00001  
 CNF .21166  
 .21250  
 .21713  
 .00068  
 CLMF .04651  
 .04461  
 .04435  
 -.00027

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .20030  
 .19761  
 .20096  
 .00001  
 CLM -.01399  
 -.02086  
 -.01905  
 -.00063  
 CN .45957  
 .46833  
 .46894  
 .00117  
 CY .06917  
 .00435  
 -.06403  
 -.01665  
 CYN -.00674  
 -.00099  
 .00493  
 .00146  
 CBL .00372  
 -.00216  
 -.00790  
 -.00145  
 CAF .11184  
 .11115  
 .11157  
 -.00003  
 CNF .42923  
 .43858  
 .43789  
 .00102  
 CLMF .02565  
 .01803  
 .02158  
 -.00051

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .19618  
 .19408  
 .19452  
 -.00021  
 CLM -.03170  
 -.03695  
 -.03437  
 -.00033  
 CN .67794  
 .68581  
 .68333  
 .00067  
 CY .05871  
 -.00178  
 -.06554  
 -.01554  
 CYN -.00304  
 -.00130  
 .00509  
 .00102  
 CBL .00890  
 .00017  
 -.00894  
 -.00223  
 CAF .10379  
 .10375  
 .10297  
 -.00010  
 CNF .64594  
 .65415  
 .65082  
 .00061  
 CLMF .01024  
 .00409  
 .00851  
 -.00022





DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8012) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.10044	-.1890	.01796	.15454	-.01543	-.00051	.03615	-.21031	-.04523
-4.000	.10697	-.20234	.02693	.07457	-.00524	-.00373	.04256	-.22383	.05458
.000	.11058	-.21018	.03068	.00277	-.00043	-.00318	.04587	-.23177	.05940
4.000	.10832	-.20631	.02632	-.07006	.00389	-.00180	.04320	-.22544	.05414
8.000	.10034	-.18563	.01689	-.15146	.01390	-.00399	.03779	-.21077	.04659
GRADIENT	.00017	-.00056	-.00008	-.01808	.00114	.00024	.00008	-.00058	-.00005

RV/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.10638	-.00167	.01612	.15255	-.01612	.00477	.04302	-.02301	-.04367
-4.000	.11327	-.01072	.02452	.07393	-.00550	-.00103	.04943	-.03211	.05200
.000	.11539	-.01692	.02828	.00313	-.00054	-.00297	.05341	-.03976	.05319
4.000	.11488	-.01540	.02313	-.06792	.00420	-.00421	.04953	-.03721	.05110
8.000	.10727	-.00089	.01601	-.14941	.01431	-.00877	.04406	-.02231	.04402
GRADIENT	.00020	-.00059	-.00017	-.01773	.00121	-.00040	.00002	-.00064	-.00011

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.10170	.18661	.01796	.15030	-.01650	.00929	.03696	.16507	.04538
-4.000	.10513	.18261	.02229	.07323	-.00560	.00118	.04182	.16148	.04928
.000	.10657	.17718	.02560	.00484	-.00065	-.00318	.04576	.15642	.05238
4.000	.10624	.17835	.02016	-.06624	.00431	-.00677	.04380	.15738	.04756
8.000	.09935	.19035	.01485	-.14610	.01447	-.01347	.03824	.16927	.04259
GRADIENT	.00014	-.00049	-.00027	-.01743	.00124	-.00399	.00025	-.00051	-.00022

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.08210	.38449	.01691	.14337	-.01611	.01437	.01764	.36294	.04436
-4.000	.08345	.39449	.01869	.06840	-.00529	.00301	.02204	.36370	.04520
.000	.08493	.37559	.02121	.00169	-.00042	-.00350	.02479	.35500	.04783
4.000	.08289	.37948	.01593	-.06473	.00431	-.00919	.02855	.35551	.04300
8.000	.07879	.33771	.01242	-.14405	.01463	-.01674	.01907	.34636	.04370
GRADIENT	.00006	-.00063	-.00036	-.01664	.00120	-.00153	.00011	-.00055	-.00028

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 322

0A148 -140 A/B/C/R CAVITY P.. BASE P ADJUSTED

(KF0012) ( 10 FEB 76 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6600 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

RUDER = .000  
BDPLAP = 22.500  
ELVN-L = .000  
ELVN-R = .000  
MACH = .600

PARAMETRIC DATA

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
-8.000  
-4.000  
-0.000  
4.000  
8.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.5344	.6181	.01147	.13169	-.01424	.01996	-.00903	.55074	.03778
.05931	.63752	.01651	.06540	-.00362	.00741	-.00532	.57703	.03247
.05316	.53412	.02173	-.00070	.00653	-.00221	-.00620	.55439	.03738
.05497	.59392	.01392	-.05169	.00377	-.01316	-.00109	.57112	.03735
.04992	.60794	.00558	-.13342	.01402	-.02443	-.00703	.56992	.03147
-.00012	-.00045	-.00034	-.01551	.00093	-.00257	.00053	-.00036	-.00039

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6600 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

RUDER = .000  
BDPLAP = .000  
ELVN-L = .000  
ELVN-R = .000  
MACH = .600

PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-4.000  
-4.000  
-4.000  
-4.000  
-4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.16058	-.21650	.08094	.07993	-.00937	.00334	.00329	.55074	.03778
.16267	-.21181	.05575	.00253	-.00033	-.00784	.00382	.57703	.03247
.15189	-.21936	.02215	-.07760	.00606	-.00606	.00369	.55439	.03738
.00015	-.00038	.00015	-.01569	.00155	-.00105	.00029	.57112	.03735

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

BETA

CA  
.15707  
.15797  
.15839  
.15817  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.15707	-.00718	.02146	.01376	-.00480	.00333	.00324	.55074	.03778
.15797	-.00953	.02464	.00220	.00012	-.00162	.00369	.57703	.03247
.15839	-.00732	.02159	-.07083	.00501	-.00643	.00324	.55439	.03738
.15817	-.00002	.00001	-.01697	.00127	-.00127	.00024	.57112	.03735

.0 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

REFERENCE DATA

SREF = 2690.0000 SQ.FT.      XMRP = 300 IN. XO      RUDDER = .000      SPOBRK = 35.000  
 LREF = 474.8000 IN.      YMRP = .0000 IN. YO      BDFLAP = .000      ELVN-L = .000  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO      ELVN-R = .000      MACH = 1.400  
 SCALE = .0300

PARAMETRIC DATA

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000      CA      CN      CLM      CY      CYN      CBL      CAF      CNF      CLMF  
 BETA      .15133      .20148      -.01332      .06550      -.00245      .00498      .09744      .17805      .01559  
   -4.000      .15129      .19808      -.01057      .00148      .00020      -.00147      .09775      .17501      .01757  
   .000      .15184      .20514      -.01437      -.06323      .00296      -.00793      .09748      .18153      .01450  
   4.000      .00006      .00046      -.00013      -.01609      .00068      -.00161      .00001      .00043      -.00014  
 GRADIENT

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000      CA      CN      CLM      CY      CYN      CBL      CAF      CNF      CLMF  
 BETA      .14436      .40193      -.03813      .06060      -.00033      .00450      .08842      .37784      .00848  
   -4.000      .39745      -.03557      .00158      .00028      -.00147      .08901      .37359      .00542  
   .000      .40463      -.04041      -.05660      .00105      -.00933      .08946      .38040      .01084  
   4.000      .00007      .00034      -.00028      -.01468      .00017      -.00173      .00032      .00030  
 GRADIENT

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000      CA      CN      CLM      CY      CYN      CBL      CAF      CNF      CLMF  
 BETA      .13933      .60099      -.06041      .06700      -.00182      .00385      .08250      .57684      .03025  
   -4.000      .60008      -.05938      .00217      .00003      -.00100      .08277      .57523      .02906  
   .000      .60030      -.06092      -.06278      .00149      -.00605      .08173      .57478      .02981  
   4.000      -.00009      -.00006      -.01622      .00041      -.00124      -.00010      -.00023      .00005  
 GRADIENT

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000      CA      CN      CLM      CY      CYN      CBL      CAF      CNF      CLMF  
 BETA      .13354      .79660      -.07537      .06255      .00340      .00580      .07534      .77155      .04430  
   -4.000      .80330      -.07912      .00213      .00022      -.00076      .07591      .77697      .04704  
   .000      .79765      -.07700      -.05965      .00247      -.00677      .07393      .77019      .04375  
   4.000      .00013      -.00020      -.01528      .00073      -.00157      -.00018      -.00017      .00007  
 GRADIENT

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 324

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8014) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = .000 SPDBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .15891  
 .15869  
 .15865  
 .00009  
 CN -25807  
 -.26655  
 -.26043  
 -.00029  
 CLM .08840  
 .09379  
 .08886  
 .00006  
 CY .07934  
 .00178  
 -.07718  
 -.01956  
 CYN -.00781  
 -.00037  
 .00678  
 .00182  
 CBL .00267  
 -.00273  
 -.00743  
 -.00126  
 CAF .09732  
 .09946  
 .09866  
 .00029  
 CNF -.28431  
 -.29221  
 -.28662  
 -.00029  
 CLMF .12012  
 .12483  
 .12069  
 .00007

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .15826  
 .15837  
 .16001  
 .00022  
 CN -.01633  
 -.01855  
 -.01666  
 -.00004  
 CLM .03583  
 .03898  
 .03607  
 .00003  
 CY .07514  
 .00289  
 -.06951  
 -.01808  
 CYN -.00631  
 -.00029  
 .00570  
 .00150  
 CBL .00422  
 -.00195  
 -.00776  
 -.00150  
 CAF .09962  
 .09965  
 .03962  
 .00001  
 CNF -.04199  
 -.04402  
 -.04307  
 -.00014  
 CLMF .06734  
 .06998  
 .06812  
 .00010

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .15464  
 .15563  
 .15632  
 .00021  
 CN .21373  
 .20935  
 .21809  
 .00054  
 CLM -.00517  
 -.00301  
 -.00739  
 -.00028  
 CY .06748  
 .00322  
 -.06333  
 -.01635  
 CYN -.00388  
 .00002  
 .00372  
 .00095  
 CBL .00532  
 -.00188  
 -.00896  
 -.00179  
 CAF .09505  
 .09673  
 .09608  
 .00013  
 CNF .18799  
 .18366  
 .19166  
 .00046  
 CLMF .02636  
 .02827  
 .02485  
 -.00019

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .14920  
 .14825  
 .15102  
 .00023  
 CN .43656  
 .42590  
 .42989  
 -.00083  
 CLM -.03480  
 -.03194  
 -.03347  
 .00017  
 CY .06335  
 .00245  
 -.05665  
 -.01525  
 CYN -.00267  
 -.00011  
 .00234  
 .00063  
 CBL .00453  
 -.00189  
 -.00876  
 -.00166  
 CAF .08775  
 .08948  
 .08804  
 .00004  
 CNF .40993  
 .39979  
 .40249  
 -.00093  
 CLMF -.00193  
 -.00000  
 -.00018  
 .00022

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .14406  
 .14267  
 .14407  
 .00000  
 CN .64743  
 .64698  
 .64546  
 -.00025  
 CLM -.05266  
 -.05128  
 -.05211  
 .00007  
 CY .06570  
 .00017  
 -.06173  
 -.01593  
 CYN -.00297  
 .00089  
 .00292  
 .00074  
 CBL .00741  
 .00031  
 -.00305  
 -.00206  
 CAF .08022  
 .07986  
 .08016  
 -.00001  
 CNF .62031  
 .61963  
 .61750  
 -.00035  
 CLMF -.01900  
 -.01784  
 -.01782  
 .00015

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 325

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED (KE8015) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

## PARAMETRIC DATA

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .15201  
 CN -.30461  
 CLM .10123  
 CY .07775  
 CYN -.00776  
 CBL -.00054

CAF .08635  
 CNF -.33314  
 CLMF .13615

CAF .08905  
 CNF -.34184  
 CLMF .13900

CAF .08924  
 CNF -.33350  
 CLMF .13382

CAF .00036  
 CNF -.00005  
 CLMF -.00029

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA .15140  
 CN -.03840  
 CLM .05225  
 CY .07059  
 CYN -.00702  
 CBL .00612

CAF .08903  
 CNF -.06569  
 CLMF .08552

CAF .08893  
 CNF -.07463  
 CLMF .09251

CAF .08930  
 CNF -.06566  
 CLMF .08682

CAF .00016  
 CNF .00000  
 CLMF .00016

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .15315  
 CN .22000  
 CLM .00667  
 CY .06901  
 CYN -.00705  
 CBL .00573

CAF .08764  
 CNF .19154  
 CLMF .04338

CAF .08944  
 CNF .18656  
 CLMF .04775

CAF .08943  
 CNF .19619  
 CLMF .04189

CAF .00022  
 CNF .00058  
 CLMF -.00019

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA .15063  
 CN .44208  
 CLM -.01247  
 CY .07172  
 CYN -.00886  
 CBL .00565

CAF .08132  
 CNF .41205  
 CLMF .02435

CAF .08299  
 CNF .41001  
 CLMF .02041

CAF .08289  
 CNF .41152  
 CLMF .02113

CAF .00024  
 CNF -.00007  
 CLMF -.00040

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA .14411  
 CN .65452  
 CLM -.02671  
 CY .06182  
 CYN -.00508  
 CBL .01053

CAF .07400  
 CNF .62426  
 CLMF .01021

CAF .07301  
 CNF .62905  
 CLMF .00639

CAF .07358  
 CNF .62361  
 CLMF .01011

CAF -.00005  
 CNF -.00008  
 CLMF -.00001

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 326

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE8016) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

## PARAMETRIC DATA

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.08153	-.28939	.06172	.09616	-.01347	-.00374	.03855	-.30810	.08495
.08227	-.29938	.06841	.00438	-.00089	-.00414	.03987	-.31806	.09113
.08170	-.28941	.05947	-.08908	.01161	-.00332	.03690	-.30915	.08313
.00002	-.00000	-.00028	-.02315	.00313	.00005	-.00021	-.00013	-.00023

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.08598	-.05348	.04588	.09287	-.01381	.00112	.04332	-.07234	.06905
.08467	-.05598	.05068	.00377	-.00098	-.00283	.04230	-.07468	.07337
.08472	-.05091	.04414	-.08574	.01176	-.00626	.04134	-.07035	.06768
-.00016	.00032	-.00022	-.02233	.00320	-.00092	-.00025	.00025	-.00017

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.08159	.16512	.03743	.09265	-.01312	.00223	.04066	.14739	.05930
.08291	.15867	.04382	.00484	-.00098	-.00336	.04344	.14118	.06509
.08128	.16921	.03510	-.08318	.01132	-.00819	.04010	.15067	.05763
-.00004	.00051	-.00029	-.02198	.00305	-.00130	-.00007	.00041	-.00021

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.07892	.37016	.02701	.08295	-.01000	.00588	.03901	.35253	.04888
.08015	.37713	.02928	.00392	-.00043	-.00201	.03966	.35941	.05079
.07790	.37933	.02497	-.07775	.00904	-.01020	.03773	.36141	.04666
-.00013	.00115	-.00025	-.02009	.00238	-.00201	-.00015	.00111	-.00028

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.07861	.56468	.01972	.08203	-.00778	.00860	.03694	.54614	.04231
.07935	.56830	.02200	.00355	-.00135	-.00115	.03740	.54964	.04460
.07874	.56192	.02014	-.07868	.00648	-.01094	.03475	.54231	.04372
.00002	-.00035	.00005	-.02009	.00178	-.00244	-.00027	-.00048	.00018

REFERENCE DATA      PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1076.6800 IN. XO      RUDDER = .000      SPOBRK = 35.000  
 LREF = 474.8000 IN.      YMRP = .0000 IN. YO      BDFLAP = .000      ELVN-L = .000  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO      ELVN-R = .000      MACH = .600  
 SCALE = .0300

RN/L = 4.82      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.05677	-.22213	.02843	.15494	-.01574	.00054	.01680	-.24040	.05050
-8.000	.06119	-.23521	.03584	.07696	-.00692	-.00216	.02153	-.25322	.05762
-4.000	.05259	-.24339	.03987	.00184	.00008	-.00356	.02362	-.26089	.06087
4.000	.06076	-.23551	.03438	-.07419	.00669	-.00409	.01921	-.25442	.05666
8.000	.05753	-.22161	.02864	-.15403	.01521	-.00547	.01296	-.24155	.05165
GRADIENT	-.00003	-.00004	-.00018	-.01889	.00170	-.00024	-.00029	-.00015	-.00012

RN/L = 4.82      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.06246	-.03951	.02700	.15176	-.01514	.00535	.02268	-.05686	.04917
-8.000	.06703	-.04636	.03378	.07598	-.00699	.00030	.02876	-.06389	.05509
-4.000	.06924	-.05196	.03810	.00164	.00009	-.00325	.03027	-.06939	.05920
4.000	.06846	-.04570	.03279	-.07266	.00672	-.00615	.02448	-.06502	.05548
8.000	.06306	-.03469	.02731	-.15208	.01574	-.01018	.01821	-.05410	.04987
GRADIENT	.00018	.00008	-.00012	-.01858	.00171	-.00081	-.00053	-.00014	.00005

RN/L = 4.81      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.05480	.14810	.02653	.15218	-.01696	.00979	.01470	.12977	.04861
-8.000	.05950	.14564	.03265	.07570	-.00688	.00222	.02087	.12806	.05395
-4.000	.06111	.13588	.03763	.00323	-.00009	-.00346	.02291	.12006	.05795
4.000	.06087	.14594	.03210	-.07005	.00651	-.00845	.01838	.12760	.05348
8.000	.05543	.15564	.02651	-.15034	.01605	-.01488	.01232	.13687	.04943
GRADIENT	.00017	.00004	-.00007	-.01822	.00167	-.00133	-.00031	-.00006	-.00005

RN/L = 4.82      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.03524	.34789	.02323	.14541	-.01625	.01432	-.00490	.32941	.04563
-8.000	.03784	.34603	.02977	.07461	-.00666	.00417	.00072	.32929	.05010
-4.000	.03907	.34357	.03398	.00381	-.00008	-.00347	.00146	.32694	.05395
4.000	.03789	.34932	.02825	-.06730	.00663	-.01059	-.00162	.33207	.04976
8.000	.03565	.35468	.02403	-.14529	.01540	-.01943	-.00856	.33535	.04640
GRADIENT	.00001	.00040	-.00019	-.01774	.00169	-.00184	-.00029	.00035	-.00017

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 328

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8017) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER =  
 BOFLAP =  
 ELVN-R =

.000 SPOBRK = 35.000  
 .000 ELVN-L = .000  
 .000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA .00710  
 .01026  
 .01162  
 .01004  
 .00760  
 -.00003

CN .56392  
 .55857  
 .55057  
 .56102  
 .57534  
 .00031

CLM .01767  
 .02775  
 .03363  
 .02523  
 .01569  
 -.00031

CY .13757  
 .06680  
 .00112  
 -.06603  
 -.14142  
 -.01660

CYN -.01603  
 -.00521  
 .00089  
 .00644  
 .01550  
 .00146

CBL .02066  
 .00873  
 -.00284  
 -.01454  
 -.02554  
 -.00291

CAF -.03201  
 -.02699  
 -.02688  
 -.03034  
 -.03738  
 -.00042

CNF .54521  
 .54171  
 .53357  
 .54295  
 .55500  
 .00015

CLMF .04013  
 .04793  
 .05379  
 .04611  
 .03945  
 -.00023

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER =  
 BOFLAP =  
 ELVN-R =

.000 SPOBRK = .000  
 -11.700 ELVN-L = .000  
 .000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000  
 .000  
 4.000  
 GRADIENT

CA .15264  
 .15435  
 .15293  
 .00004

CN -.21706  
 -.21949  
 -.21736  
 -.00004

CLM .05335  
 .05770  
 .05416  
 .00010

CY .07827  
 .00237  
 -.07423  
 -.01906

CYN -.00484  
 -.00051  
 .00406  
 .00111

CBL .00133  
 -.00194  
 -.00490  
 -.00078

CAF .10079  
 .10242  
 .10163  
 .00010

CNF -.24096  
 -.24346  
 -.24112  
 -.00002

CLMF .08191  
 .08634  
 .08253  
 .00003

ALPHA = .000

BETA

-4.000  
 .000  
 4.000  
 GRADIENT

CA .14964  
 .15025  
 .15001  
 .00005

CN -.00660  
 -.00740  
 -.00677  
 -.00002

CLM .01614  
 .01871  
 .01603  
 -.00001

CY .07059  
 .00240  
 -.06721  
 -.01722

CYN -.00308  
 -.00014  
 .00298  
 .00076

CBL .00254  
 -.00142  
 -.00525  
 -.00097

CAF .09824  
 .10023  
 .09909  
 .00011

CNF -.03024  
 -.03061  
 -.03061  
 -.00005

CLMF .04467  
 .04665  
 .04456  
 -.00001

(KE8018) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED



DATE 08 MAY 76  
TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
BOFLAP = -11.700 ELVN-L = .000  
ELVN-R = .000 MACH = 1.400

RN/L = 2.52 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.14338	.20184	-.01704	.26348	-.00076	.00407	.09335	.17887	-.01060
.14382	.20090	-.01411	.00274	.00006	-.00116	.09481	.17834	.01297
.14391	.20052	-.01671	-.05981	.00089	-.00669	.09327	.17711	.01119
.00007	-.00017	.00004	-.01541	.00021	-.00134	-.00001	-.00022	.00007

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.13650	.40143	-.03979	.05713	.00142	.00340	.08561	.37792	-.01146
.13660	.39357	-.03687	.00140	.00015	-.00144	.08689	.37047	-.00926
.13739	.40023	-.04171	-.05442	-.00122	-.00793	.08522	.37630	-.01332
.00011	-.00015	-.00024	-.01394	-.00033	-.00142	-.00005	-.00020	-.00023

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.13182	.59373	-.05989	.06348	.00017	.00309	.08031	.56928	-.03071
.13282	.59379	-.05846	.00211	-.00019	-.00099	.07981	.56910	-.02924
.13336	.59221	-.05967	-.05939	-.00072	-.00485	.07850	.56599	-.02982
.00019	-.00019	.00003	-.01536	-.00011	-.00099	-.00023	-.00029	.00011

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
BETA  
-4.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.12579	.79004	-.07417	.05916	.00539	.00477	.07347	.76482	-.04401
.12949	.78659	-.07638	.00286	.00003	-.00056	.07286	.77013	-.04539
.12959	.79990	-.07545	-.05553	-.00469	-.00558	.07168	.76311	-.04379
.00048	-.00002	-.00016	-.01435	-.00126	-.00129	-.00022	-.00021	.00003

DATE 08 MAY 76

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KEB019) ( 10 FEB 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .15042  
 CN .25777  
 CLM .08144  
 CY .07680  
 CYN -.00578  
 CBL .00147

CA .15071  
 CN .26395  
 CLM .08139  
 CY .00300  
 CYN -.00055  
 CBL -.00243

CA .15150  
 CN .25928  
 CLM .08139  
 CY -.07302  
 CYN .00464  
 CBL -.00596

CA .00014  
 CN -.00019  
 CLM -.00001  
 CY -.01873  
 CYN .00130  
 CBL -.00093

CA .09420  
 CN -.28378  
 CLM .09420  
 CY .05383  
 CYN -.00023  
 CBL .11270

CA .09480  
 CN -.28939  
 CLM .09480  
 CY .09604  
 CYN .00013  
 CBL .11673

CA .09584  
 CN -.28531  
 CLM .09584  
 CY .00013  
 CYN .00022  
 CBL .11268

CA .06141  
 CN -.04116  
 CLM .06141  
 CY .06403  
 CYN .00007  
 CBL .05196

CA .06141  
 CN -.04116  
 CLM .06141  
 CY .06403  
 CYN .00007  
 CBL .05196

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA .14964  
 CN -.01576  
 CLM .03087  
 CY .06983  
 CYN -.00420  
 CBL .00329

CA .14999  
 CN -.01869  
 CLM .03437  
 CY .00271  
 CYN -.00168  
 CBL -.00168

CA .15079  
 CN -.01705  
 CLM .03094  
 CY -.06639  
 CYN .00344  
 CBL -.00640

CA .00014  
 CN -.00016  
 CLM .00001  
 CY -.01703  
 CYN .00096  
 CBL -.00121

CA .09480  
 CN -.04116  
 CLM .09480  
 CY .09704  
 CYN .00013  
 CBL .06141

CA .09584  
 CN -.04327  
 CLM .09584  
 CY .00013  
 CYN .00022  
 CBL .05196

CA .06141  
 CN -.04116  
 CLM .06141  
 CY .06403  
 CYN .00007  
 CBL .05196

CA .06141  
 CN -.04116  
 CLM .06141  
 CY .06403  
 CYN .00007  
 CBL .05196

CA .06141  
 CN -.04116  
 CLM .06141  
 CY .06403  
 CYN .00007  
 CBL .05196

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .14618  
 CN .21394  
 CLM -.00794  
 CY .06389  
 CYN -.00168  
 CBL .00407

CA .14757  
 CN .21085  
 CLM -.00561  
 CY .00354  
 CYN .00003  
 CBL -.00175

CA .14757  
 CN .21057  
 CLM -.00873  
 CY -.05917  
 CYN .00148  
 CBL -.00754

CA .00317  
 CN -.00042  
 CLM -.00010  
 CY -.01538  
 CYN .00039  
 CBL -.00145

CA .09144  
 CN .18880  
 CLM .09144  
 CY .09392  
 CYN .00016  
 CBL .02233

CA .09274  
 CN .18594  
 CLM .09274  
 CY .00016  
 CYN .00045  
 CBL .02443

CA .00016  
 CN -.00045  
 CLM .00016  
 CY .00016  
 CYN .00007  
 CBL .02180

CA .00016  
 CN -.00045  
 CLM .00016  
 CY .00016  
 CYN .00007  
 CBL .00007

CA .00016  
 CN -.00045  
 CLM .00016  
 CY .00016  
 CYN .00007  
 CBL .00007

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA .14098  
 CN .43160  
 CLM -.03528  
 CY .05907  
 CYN -.00050  
 CBL .00338

CA .14035  
 CN .42071  
 CLM -.03186  
 CY .00210  
 CYN -.00011  
 CBL .00185

CA .14256  
 CN .42532  
 CLM -.03442  
 CY -.05500  
 CYN .00009  
 CBL -.00744

CA .00020  
 CN -.00078  
 CLM .00011  
 CY -.01438  
 CYN .00007  
 CBL -.00135

CA .08518  
 CN .40575  
 CLM .08518  
 CY .08518  
 CYN .00020  
 CBL .00020

CA .08518  
 CN .39508  
 CLM .08518  
 CY .08518  
 CYN .00020  
 CBL .00020

CA .08518  
 CN .39508  
 CLM .08518  
 CY .08518  
 CYN .00020  
 CBL .00020

CA .08518  
 CN .39508  
 CLM .08518  
 CY .08518  
 CYN .00020  
 CBL .00020

CA .08518  
 CN .39508  
 CLM .08518  
 CY .08518  
 CYN .00020  
 CBL .00020

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA .13461  
 CN .64120  
 CLM -.05194  
 CY .06066  
 CYN -.00057  
 CBL .00598

CA .13541  
 CN .64281  
 CLM -.05090  
 CY .00027  
 CYN .00070  
 CBL .00038

CA .13681  
 CN .63881  
 CLM -.05132  
 CY -.05862  
 CYN .00055  
 CBL .00791

CA .00027  
 CN -.00030  
 CLM .00008  
 CY -.01491  
 CYN .00014  
 CBL -.00174

CA .07853  
 CN .61502  
 CLM .07853  
 CY .07776  
 CYN .00016  
 CBL .00016

CA .07722  
 CN .61090  
 CLM .07722  
 CY .07722  
 CYN .00016  
 CBL .00016

CA .07722  
 CN .61090  
 CLM .07722  
 CY .07722  
 CYN .00016  
 CBL .00016

CA .07722  
 CN .61090  
 CLM .07722  
 CY .07722  
 CYN .00016  
 CBL .00016

CA .07722  
 CN .61090  
 CLM .07722  
 CY .07722  
 CYN .00016  
 CBL .00016

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(KE8020) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO RUDDER = .000 SPOBRK = .000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = -11.700 SLVN-L = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = .000 MACH = 1.100  
 SCALE = .0300

## PARAMETRIC DATA

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.14338	-.30554	.09723	.07360	-.00549	-.00183	.08301	-.33362	.13094
.14362	-.31698	.10279	.00203	-.00063	-.00336	.08528	-.34445	.13571
.14464	-.31184	.09877	-.07116	.00407	-.00396	.08345	-.34030	.13277
.00016	-.00079	.00019	-.1809	.00119	-.00027	.00006	-.00083	.00023

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.14316	-.03973	.05000	.06595	-.00472	.00457	.09537	-.06677	.08239
.14273	-.04794	.05753	.00226	-.00068	-.00266	.08603	-.07454	.08938
.14409	-.04422	.05179	-.06365	.00341	-.00959	.05600	-.07132	.06423
.00012	-.00056	.00022	-.01520	.00102	-.00177	.00008	-.00057	.00023

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.14435	.21814	.00841	.06331	-.00363	.00432	.08621	.19111	.04088
.14429	.21490	.01068	.00338	-.00054	-.00218	.08753	.18829	.04279
.14439	.21495	.00757	-.05825	.00213	-.00929	.08670	.18779	.04012
.00707	-.00040	-.00011	-.01520	.00072	-.00170	.00006	-.00041	-.00009

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.14046	.43216	-.00943	.06459	-.00471	.00306	.08111	.40469	.02364
.13937	.43007	-.01002	.00226	-.00073	-.00254	.08154	.40309	.02240
.14113	.43153	-.01254	-.05928	.00263	-.00720	.08149	.40372	.02092
.00008	-.00008	-.00039	-.01548	.00092	-.00129	.00005	-.00012	-.00034

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.13488	.64703	-.02382	.05432	-.00067	.00817	.07262	.61830	.01072
.13483	.64983	-.02619	-.00374	.00168	.00005	.07297	.62107	.00805
.13495	.64513	-.02496	-.06146	.00294	-.00821	.07387	.61643	.00928
.00001	-.00024	-.00014	-.01447	.00045	-.00205	.00016	-.00023	-.00018

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(KE8021) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPCBRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

## PARAMETRIC DATA

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA .07142  
 CN -23412  
 CLM .06055  
 CY .08955  
 CYN -.01049  
 CBL -.00567  
 CAF .03182  
 CNF -31360  
 CLMF .08242  
 .07349  
 -.30370  
 .06855  
 .00247  
 -.00054  
 .03345  
 -.32344  
 .09054  
 .07027  
 -.23541  
 .05739  
 -.08376  
 .00784  
 .02343  
 -.31950  
 .08075  
 -.00014  
 -.00016  
 -.00037  
 -.02166  
 .00229  
 .00051  
 -.00030  
 -.00024  
 -.00021  
 -.00021

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -.4.000  
 .000  
 .000  
 GRADIENT

CA .07362  
 CN -.05660  
 CLM .04494  
 CY .08628  
 CYN -.01040  
 CBL -.00654  
 CAF .03478  
 CNF -.07626  
 CLMF .06672  
 .07605  
 -.05943  
 .05090  
 .00337  
 -.00094  
 .03769  
 -.07844  
 .07297  
 .07391  
 -.05801  
 .04373  
 -.08063  
 .00848  
 .00430  
 .07659  
 .06496  
 .00004  
 -.00016  
 -.00004  
 -.00022

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA .07206  
 CN .16044  
 CLM .03262  
 CY .08478  
 CYN -.00909  
 CBL -.00017  
 CAF .03449  
 CNF .14220  
 CLMF .06048  
 .07427  
 .15347  
 .04594  
 .00530  
 -.00317  
 .03880  
 .13583  
 .06559  
 .07273  
 .15878  
 .03735  
 -.07697  
 .00724  
 .00556  
 .14036  
 .05930  
 .00008  
 -.00021  
 -.00029  
 -.02022  
 .00204  
 -.00059  
 -.00001  
 -.00023  
 -.00027

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA .03335  
 CN .36234  
 CLM .03092  
 CY .07427  
 CYN -.00560  
 CBL -.00367  
 CAF .03381  
 CNF .34466  
 CLMF .05118  
 .07244  
 .36357  
 .03216  
 .00142  
 -.00015  
 .03743  
 .34627  
 .05216  
 .07039  
 .36474  
 .02896  
 -.07245  
 .00517  
 .00773  
 .00013  
 .00030  
 -.00024  
 -.01934  
 .00135  
 -.00143  
 .00005  
 .00031  
 -.00026

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA .07101  
 CN .55619  
 CLM .02271  
 CY .07147  
 CYN -.00290  
 CBL .00599  
 CAF .03239  
 CNF .53709  
 CLMF .01118  
 .07160  
 .55297  
 .02630  
 .00093  
 .03250  
 .01118  
 .07084  
 .55138  
 .02259  
 -.07299  
 .00194  
 .00745  
 .00001  
 .00061  
 .00166  
 .00001  
 .00059  
 -.00001  
 .00001  
 .00001



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AHES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE6022) ( 10 FEB 76 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPDRK = .000  
BDFLAP = -11.700 ELVN-L = .000  
ELVN-R = .000 MACH = .600

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

CA -.00028  
CN .55238  
CLM .02260  
CY .12583  
CYN -.00986  
CBL .01761  
CAF -.03837  
CNF .53361  
CLMF .04301

CA .00202  
CN .54961  
CLM .02939  
CY .06091  
CYN -.00301  
CBL .00753  
CAF -.03384  
CNF .53155  
CLMF .04623

CA .00268  
CN .53750  
CLM .03530  
CY -.00149  
CYN .00104  
CBL -.00321  
CAF -.03236  
CNF .52022  
CLMF .05600

CA .00120  
CN .54553  
CLM .02813  
CY -.06515  
CYN .00519  
CBL -.01375  
CAF -.03350  
CNF .52738  
CLMF .04614

CA .00072  
CN .55818  
CLM .02047  
CY -.13340  
CYN .01072  
CBL -.02306  
CAF -.04109  
CNF .53826  
CLMF .04187

CA .00010  
CN .00051  
CLM -.00016  
CY -.11576  
CYN .00102  
CBL -.00266  
CAF -.00001  
CNF .00045  
CLMF .00014

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPDRK = .000  
BDFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = 1.400

RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

CA .15000  
CN .02047  
CLM .04644  
CY .07770  
CYN -.00485  
CBL .00122  
CAF .09369  
CNF -.23454  
CLMF .05622

CA .15143  
CN .21729  
CLM .05174  
CY .00221  
CYN -.00061  
CBL -.00207  
CAF .09342  
CNF -.24103  
CLMF .05657

CA .15050  
CN .21246  
CLM .04725  
CY -.07428  
CYN .00378  
CBL -.00491  
CAF .09441  
CNF -.23633  
CLMF .05625

CA .00306  
CN .00025  
CLM .00010  
CY -.01900  
CYN .00108  
CBL -.00077  
CAF .00009  
CNF -.00022  
CLMF .00013

ALPHA = .000

BETA

CA .14715  
CN .00100  
CLM .00801  
CY .07104  
CYN -.00340  
CBL .00242  
CAF .09348  
CNF -.02439  
CLMF .05623

CA .14804  
CN .00318  
CLM .01103  
CY .00189  
CYN -.00024  
CBL -.00152  
CAF .09380  
CNF -.02671  
CLMF .05673

CA .14816  
CN .00028  
CLM .00756  
CY -.06505  
CYN .00291  
CBL -.00635  
CAF .09354  
CNF -.02342  
CLMF .05646

CA .00013  
CN .00016  
CLM -.00006  
CY .01719  
CYN .00079  
CBL -.00097  
CAF .00001  
CNF .00012  
CLMF .00015

(KE8023) 1 10 FEB 76 )

DATE 08 MAY 76 TABULATED FORCE DATA - 04148 ( AMES 11-073-1 )  
04148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

PARAMETRIC DATA  
RUDDER = .000 SPDRK = .000  
BDFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = 1.400

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0700

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLNF
BETA -4.000	.14173	.20844	-.02608	.06235	-.00067	.00398	.08832	.18513	.02667
.000	.14215	.20339	-.02311	.00163	-.00004	-.00145	.08893	.18240	.02447
4.000	.14247	.21026	-.02661	-.06113	.00083	-.00679	.05933	.18254	.00197
GRADIENT	.00009	.00023	-.00007	-.01546	.00021	-.00135	.00000	.00021	-.00009

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLNF
BETA -4.000	.13544	.40661	-.04939	.05725	.00123	.00353	.07983	.35262	.01967
.000	.13546	.40315	-.04778	.00202	.00005	-.00134	.08113	.39457	.01899
4.000	.13626	.41459	-.05232	-.05442	-.00113	-.00773	.08110	.39260	.02303
GRADIENT	.00010	.00100	-.00037	-.01355	-.00030	-.00141	.00016	.00101	-.00042

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLNF
BETA -4.000	.13068	.60637	-.07119	.06462	.00117	.00305	.07373	.58203	.04099
.000	.13137	.60832	-.07045	.00365	-.00004	-.00091	.07517	.58372	.04033
4.000	.13258	.60908	-.07170	-.05883	-.00047	-.00479	.07359	.58273	.04080
GRADIENT	.00025	.00021	-.00006	-.01543	-.00000	-.00098	-.00002	.00009	.00002

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLNF
BETA -4.000	.12533	.80324	-.06570	.05947	.00538	.00470	.05179	.77942	.01590
.000	.12858	.81097	-.06997	.00313	.00004	-.00056	.06756	.78451	.01575
4.000	.12859	.80483	-.06934	-.05607	-.00465	-.00553	.06618	.77786	.01542
GRADIENT	.00041	.00020	-.00020	-.01444	-.00125	.0012	-.00020	-.00010	.00006

DATE 08 MAY 76  
TABULATED FORCE DATA - 00148 ( AMES 11-073-1 )

TABULATED FORCE DATA - QAI48 ( AMES 11-073-1 )  
 QAI48 - 140 A/B/C R CAVITY P. BASE P. ADJUSTED

( 91. 833 01 ; (42083M)

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 14.8000 IN.  
BREF = 935.6500 IN.  
SCALE = .0300

1:05	0008	1381
1:05	0007	1385

REF ID: A66666

SCALE = .0300

RUDDER	=	.000	SPDRBK	=	.000
BOFLAP	=	.000	ELVK-L	=	.000
ELVN-R	=	.000	MACH	=	1.250

BOFLAP = .000 ELVN-L =

ELVN-R = .000 MACH =

### PARAMETRIC DATA

BN/L =	3.01	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	=	-4.000	BETA	-4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
		-4.000		.14760	-25102	.07290	.07624	-0.0601	-0.0146	.08705	-27696	-1043F	
		.000		.14768	-25811	.07848	.00145	-0.0075	-0.0263	.08835	-29363	-10345	
		.14786		.25377	.07363	.07345	-0.0045	-0.0607	-0.0881	-27946	-1046E		
		.00002		.00034	.00000	.00000	.01871	.00131	-0.0094	-0.0022	-0.0031	-0.0006	

CAF	CNF	CLMF
.08705	-.27696	.1043F
.08835	-.29363	.10945
.08881	-.27946	.1048E
.00022	-.00031	.0000E

CAF	CNF	CLMF
.08705	-.27696	.1043F
.08835	-.29363	.10945
.08881	-.27946	.1048E
.00022	-.00031	.0000E

CAF	CNF	CLMF
.08705	-.27696	.1043F
.08835	-.29363	.10945
.08881	-.27946	.1048E
.00022	-.00031	.0000E

CAF	CNF	CLMF
.08705	-.27696	.1043F
.08835	-.29363	.10945
.08881	-.27946	.1048E
.00022	-.00031	.0000E

RN/1	=	3.02	GRADIENT INTERVAL	=	-5.00/	5.00
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ALPHA	=	.000	BETA	-4.000	.000	4.000	CONST	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
								1.680	-.00924	.02214	.07029	-.00435	.00315	.08879	-.03437	.05300
								.14727	-.01216	.02511	.00209	-.00038	-.00189	.08972	-.03710	.05540
								.14826	-.00383	.02129	-.06739	.00339	-.00650	.08951	-.03441	.05238
								.00018	.00005	-.00011	.01721	.00097	-.00121	.00009	-.00000	-.00008

CAF	CNF	CLMF
08879	-.03437	.05300
.08972	-.03710	.05540
.08951	-.03441	.05238
.00009	-.00000	-.00008

CAF	CNF	CLMF
08879	-.03437	.05300
.08972	-.03710	.05540
.08951	-.03441	.05238
.00009	-.00000	-.00008

CAF	CNF	CLMF
08879	-.03437	.05300
.08972	-.03710	.05540
.08951	-.03441	.05238
.00009	-.00000	-.00008

CAF	CNF	CLMF
08879	-.03437	.05300
.08972	-.03710	.05540
.08951	-.03441	.05238
.00009	-.00000	-.00008

BN/I = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	=	4.000	BETA	-4.000	.000	4.000	GRADIENT	00020	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
									.14372	.22034	-.01821	-.06310	-.00191	-.00398	-.08483	.19486	.01318
									.14523	.21780	-.01627	.00203	-.00018	-.00194	.08711	.01463	.01463
									.14531	.22285	-.02009	-.05032	.00137	-.00767	.08729	.19724	.01098
									.00020	.00031	-.00026	-.05433	.00041	-.00146	.00031	.00030	-.50028

CAF	CNF	CLMF
.08483	.19486	.01318
.08711	.19244	.01463
.08729	.19724	.01098
.00031	.00030	-.00026

CAF	CNF	CLMF
.08483	.19486	.01318
.08711	.19244	.01463
.08729	.19724	.01098
.00031	.00030	-.00026

CAF	CNF	CLMF
.08483	.19486	.01318
.08711	.19244	.01463
.08729	.19724	.01098
.00031	.00030	-.00026

CAF	CNF	CLMF
.08483	.19486	.01318
.08711	.19244	.01463
.08729	.19724	.01098
.00031	.00030	-.00026

RN/L =	3.01	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA =	8.000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
			.13998	.43923	-.04622	-.05945	-.00081	.00349	.07841	.91296	-.01374
			.13937	.43704	-.04363	.00268	-.00021	-.00162	.07949	.41131	-.01211
			.14053	.44033	-.04619	-.05554	.00026	-.00752	.07855	.41386	-.01362
			.00017	.00016	.00000	-.01450	.00013	-.00138	.00002	.00011	.000001

CAF	CNF	CLMF
.07841	.41296	-.01374
.07949	.41131	-.01211
.07855	.41386	-.01368
.00002	.00011	.00001

CAF	CNF	CLMF
.07841	.41296	-.01374
.07949	.41131	-.01211
.07855	.41386	-.01368
.00002	.00011	.00001

CAF	CNF	CLMF
.07841	.41296	-.01374
.07949	.41131	-.01211
.07855	.41386	-.01368
.00002	.00011	.00001

CAF	CNF	CLMF
.07841	.41296	-.01374
.07949	.41131	-.01211
.07855	.41386	-.01368
.00002	.00011	.00001

BN/1	=	3.02	GRADIENT	INTERVAL	=	-5.00/	5.00
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ALPHA = 12.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA									
-4.000	.3372	.65164	-.06382	.06142	-.00098	.00617	.07098	.62505	-.03084
.000	.1332	.65682	-.06271	.00106	.00058	.00047	.07140	.62980	-.02975
4.000	.13420	.65514	-.06399	-.05913	.00073	-.00783	.07152	.62772	-.03032
GRADIENT	.0006	.00044	-.0002	-.01507	.00021	-.00175	.00007	.00073	.00007

CAF	CNF	CLMF
.07098	.62505	-.03084
.07140	.62980	-.02975
.07152	.62772	-.03032
.00007	.00033	.00007

CAF	CNF	CLMF
.07098	.62505	-.03084
.07140	.62980	-.02975
.07152	.62772	-.03032
.00007	.00033	.00007

CAF	CNF	CLMF
.07098	.62505	-.03084
.07140	.62980	-.02975
.07152	.62772	-.03032
.00007	.00033	.00007

CAF	CNF	CLMF
.07098	.62505	-.03084
.07140	.62980	-.02975
.07152	.62772	-.03032
.00007	.00033	.00007



(KE8025) ( 10 FEB 76 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
BDFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = 1.100

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA = -4.000  
GRADIENT = 4.000

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.13990	-.29553	.08570	.07350	-.00580	-.00185	.07520	-.32369	.12030
.14034	-.30396	.08832	.00057	-.00054	-.00344	.07697	-.33135	.12192
.14076	-.30037	.08564	-.07235	.00445	-.00433	.07748	-.32809	.11986
.00011	-.00060	-.00001	-.01823	.00128	-.00031	.00029	-.00055	-.00006

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA = -4.000  
GRADIENT = 4.000

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.13958	-.02902	.03747	.06675	-.00526	.00440	.07757	-.05582	.07024
.13953	-.03977	.04473	.00110	-.00081	-.00279	.07799	-.06647	.07731
.13934	-.03135	.03906	-.06582	.00383	-.00973	.07939	-.05795	.07181
.00004	-.00029	.00020	-.01657	.00114	-.00177	.00023	-.00027	.00020

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA = -4.000  
GRADIENT = 4.000

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.14094	.22558	-.00268	.06369	-.00422	.00419	.07778	.19821	.03083
.14157	.22028	.00067	.00187	-.00065	-.00239	.08057	.19352	.03334
.14173	.22786	-.00466	-.05997	.00242	-.00944	.08005	.20086	.02852
.00010	.00029	-.00023	-.01546	.00083	-.00170	.00028	.00033	-.00029

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA = -4.000  
GRADIENT = 4.000

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.13789	.44553	-.02419	.06335	-.00451	.00415	.07347	.41763	.01011
.13664	.44953	-.02525	.00326	-.00087	-.00181	.07394	.42222	.00814
.13663	.44971	-.02811	-.06112	.00326	-.00737	.07370	.42137	.00841
.00009	.00052	-.00024	-.01556	.00097	-.00144	.00003	.00047	-.00021

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA = -4.000  
GRADIENT = 4.000

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.13232	.66094	-.03828	.05492	-.00106	.00925	.06885	.63248	-.00352
.13177	.66786	-.04091	-.00249	.00131	.00010	.06564	.63900	-.00579
.13199	.66584	-.03957	-.06232	.00337	-.00847	.06487	.63643	-.00358
-.00004	.00061	-.00016	-.01466	.00055	-.00209	-.00025	.00049	-.00001

DATE 08 MAY 76

(KE8026) ( 10 FEB 76 )

OAI48 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.8000 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
BOFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = .900

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CAF .02743  
CBL -.00565  
CYN -.01007  
CY .08793  
CLM .04387  
CN -.27714  
CA .06585  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CNF -.29400  
CLMF .06476  
CAF .02881  
CBL -.00441  
CYN -.00062  
CY .00196  
CLM .05214  
CN -.28628  
CA .06827  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CAF .03101  
CBL -.00086  
CYN -.01042  
CY .08606  
CLM .02926  
CN -.04169  
CA .06976  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CNF -.05889  
CLMF .05053  
CAF .03389  
CBL -.00292  
CYN -.00079  
CY .00249  
CLM .03497  
CN -.04553  
CA .06970  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CAF .02857  
CBL -.00038  
CYN -.00911  
CY .08379  
CLM .02326  
CN .17402  
CA .06528  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CNF .15787  
CLMF .04314  
CAF .03274  
CBL -.00347  
CYN -.00117  
CY .00393  
CLM .02994  
CN .16713  
CA .06682  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CAF .02901  
CBL -.00364  
CYN -.00593  
CY .07543  
CLM .01414  
CN .37712  
CA .06442  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CNF .36156  
CLMF .03312  
CAF .03126  
CBL -.00172  
CYN -.00044  
CY .00315  
CLM .01583  
CN .38419  
CA .06593  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CAF .02692  
CBL -.00618  
CYN -.00398  
CY .07443  
CLM .00681  
CN .57181  
CA .06507  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CNF .55511  
CLMF .02742  
CAF .02805  
CBL -.00096  
CYN -.00126  
CY .00206  
CLM .00967  
CN .57523  
CA .06507  
BETA  
-4.000  
0.000  
4.000  
GRADIENT



DATE 08 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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(KE8027) ( 10 FEB 76 )

OA148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = .000  
 BOFLAP = .000  
 ELVN-R = .000

SPOBRK = .000  
 ELVN-L = .000  
 MACH = .600

## PARAMETRIC DATA

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-.00586	.57531	.00658	.12614	-.01057	.01823	-.04119	.55916	.02599
-.00436	.56950	.01532	.06162	-.00359	.00792	-.03811	.55296	.03392
-.00269	.55614	.02056	-.00074	.00075	-.00289	-.03718	.54078	.03896
-.00376	.55490	.01328	-.06389	.00479	-.01375	-.03961	.54880	.03199
-.00540	.57836	.00571	-.13331	.01024	-.02304	-.04373	.56088	.02571
.00008	-.00045	-.00026	-.01569	.00105	-.00271	-.00019	-.00052	-.00024

OA148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8028) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = -10.000  
 BOFLAP = 16.300  
 ELVN-R = .000

SPOBRK = 35.000  
 ELVN-L = 10.000  
 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.17242	-.16454	.01693	.05317	.00770	.00334	.10869	-.18795	.04672
.17472	-.17066	.02312	-.02503	.01317	-.00054	.11187	-.19413	.05284
.17415	-.16561	.01994	-.10245	.01837	-.00379	.11174	-.19032	.05015
.00022	-.00026	.00038	-.01945	.00133	-.00069	.00036	-.00030	.00043

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.17020	.04480	-.02448	.04788	.00747	.00488	.10634	.02498	.00558
.17314	.04384	-.01905	-.02177	.01159	.00002	.10908	.01986	.01127
.17426	.04386	-.01934	-.09212	.01599	-.00463	.10965	.01960	.01137
.00051	-.00062	.00064	-.01750	.00106	-.00119	.00041	-.00067	.00072

OA148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

PARAMETRIC DATA

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT.      XMRP = 1076.6800 IN. XO      RUDDER = -10.000      SPOBRK = 35.000  
 LREF = 474.8000 IN.      YMRP = .0000 IN. YO      BDFLAP = 16.300      ELVN-L = 10.000  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO      ELVN-R = .000      MACH = 1.400  
 SCALE = .0300

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000      BETA = 4.000      GRADIENT  
 CA .16631      CN .25934      CLM -.06255      CY .04396      CYN .00796      CBL .00653      CAF .10173      CNF .23509      CLMF -.03192  
 .16800      .25392      -.05725      -.01896      .01016      .00060      .10501      .23015      -.02704  
 .17034      .26012      -.05942      -.08305      .01264      -.00556      .10628      .23601      -.02862  
 .00050      .00010      .00039      -.01588      .00058      -.00151      .00057      .00011      .00041

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000      BETA = 4.000      GRADIENT  
 CA .16135      CN .46619      CLM -.09328      CY .03970      CYN .00879      CBL .00830      CAF .09550      CNF .44168      CLMF -.06221  
 .16284      .46329      -.08913      -.01645      .00907      .00213      .09788      .43903      -.05840  
 .16470      .47091      -.09116      -.07599      .00964      -.00558      .10112      .44689      -.06027  
 .00042      .00059      .00027      -.01446      .00011      -.00174      .00070      .00065      .00024

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000      BETA = 4.000      GRADIENT  
 CA .15825      CN .67208      CLM -.11953      CY .04256      CYN .00834      CBL .00860      CAF .09050      CNF .64689      CLMF -.08761  
 .15966      .67222      -.11707      -.01719      .00847      .00377      .09411      .64753      -.08540  
 .16135      .66390      -.11458      -.07933      .00909      -.00232      .09679      .64549      -.08287  
 .00039      -.00027      .00062      -.01524      .00009      -.00137      .00079      -.00018      .00059

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000      BETA = 4.000      GRADIENT  
 CA .15381      CN .87287      CLM -.13857      CY .03917      CYN .01215      CBL .01102      CAF .08532      CNF .84737      CLMF -.10624  
 .15564      .87772      -.13902      -.01702      .00814      .00379      .08899      .85268      -.10567  
 .15704      .86657      -.13348      -.07549      .00492      -.00290      .09050      .84109      -.10080  
 .00040      -.00079      .00065      -.01433      -.00090      -.00174      .00065      -.00078      .00068

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( KE8029 ) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BRFE = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPD BRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAF .10113  
 CNF -.21975  
 CLMF .06757  
 .07242  
 .07016  
 .00032

CBL .00517  
 CYN .00783  
 CY .04796  
 CLM .03403  
 CN -.19320  
 CA .17238

CA .17238  
 .17446  
 .17530  
 .00036

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAF .10158  
 CNF .02233  
 CLMF .01487  
 .01886  
 .01871  
 .00048

CBL .00611  
 CYN .00751  
 CY .04575  
 CLM -.01854  
 CN .04685  
 CA .17208

CA .17208  
 .17512  
 .17826  
 .00077

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAF .09947  
 CNF .26102  
 CLMF -.03254  
 -.02727  
 -.02889  
 .00046

CBL .00868  
 CYN .00799  
 CY .03964  
 CLM -.06656  
 CN .28806  
 CA .17084

CA .17084  
 .17512  
 .17729  
 .00081

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAF .09357  
 CNF .48726  
 CLMF -.06698  
 -.06188  
 -.06024  
 .00084

CBL .01083  
 CYN .00854  
 CY .03633  
 CLM -.10259  
 CN .51539  
 CA .16890

CA .16890  
 .17059  
 .17306  
 .00052

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAF .08782  
 CNF .70954  
 CLMF -.08693  
 -.08421  
 -.08271  
 .00078

CBL .01572  
 CYN .00965  
 CY .03263  
 CLM -.12552  
 CN .73845  
 CA .16578

CA .16578  
 .16644  
 .16793  
 .00027

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE8030) ( 10 FEB 76 )

# REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = -10.000 SPCBRK = 35.000  
BDFLAP = 16.300 ELVN-L = 10.000  
ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.16990	-.21943	.03187	.03815	.01048	.00401	.09121	-.24956	.06997
.17199	-.23215	.03850	-.03571	.01633	.00120	.09332	-.26176	.07621
.17419	-.22826	.03657	-.10911	.02184	-.00031	.09508	-.25804	.07465
.00054	-.00110	.00059	-.01841	.00142	-.00054	.00048	-.00106	.00058

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.17022	.04588	-.01629	.03442	.00962	.00965	.09226	.01605	.02146
.17306	.03839	-.01102	-.03247	.01505	.00264	.09514	.00889	.02649
.17536	.04365	-.01434	-.09882	.02027	-.00475	.09715	.01426	.02315
.00064	-.00028	.00024	-.01666	.00133	-.00180	.00061	-.00022	.00021

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.17232	.31309	-.06621	.03110	.00977	.01119	.09373	.28326	.02831
.17540	.30841	-.06249	-.02870	.01391	.00298	.09671	.27905	.02515
.17785	.31193	-.06471	-.09138	.01806	-.00464	.09907	.28264	.02725
.00069	-.00015	.00019	-.01531	.00104	-.00198	.00067	-.00008	.00013

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.17112	.54757	-.09979	.02605	.01005	.01468	.08705	.51583	.05956
.17430	.54731	-.09556	-.03305	.01456	.00791	.09158	.51660	.05741
.17670	.54039	-.09117	-.09686	.02013	-.00078	.09567	.51026	.05236
.00070	-.00090	.00108	-.01536	.00126	-.00193	.00108	-.00070	.00090

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.16606	.76791	-.11325	.02228	.01131	.01885	.09188	.73644	.07301
.16833	.76760	-.10951	-.03913	.01639	.00833	.08537	.73715	.07056
.17134	.75356	-.10706	-.10086	.02111	-.00030	.08921	.72879	.06710
.00066	-.00103	.00077	-.01539	.00123	-.00239	.00092	-.00096	.00074







0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE8032) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .030

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPDRK = 35.000  
 BDFLAP = .6.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CA

.02129

.02365

.02436

.02491

.02442

.00016

CN

.70315

.69372

.69051

.69362

.71154

-.00014

CLM

-.05573

-.04906

-.04753

-.05750

-.06341

-.00106

CY

.08527

.01289

-.05358

-.11976

-.9375

-.01658

CYN

.00065

.01230

.01864

.03532

.03335

.00163

CBL

.03437

.02096

.01018

-.00191

-.01312

-.00286

CAF

-.03020

-.02261

-.02081

-.02376

-.03001

-.00014

CNF

.68436

.68151

.67302

.67556

.69170

-.00024

CLMF

-.03302

-.02626

-.02510

-.03322

-.03873

-.00097

## REFERENCE DATA

SREF = 2690.000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .030

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA

.17376

.17437

.17325

-.00008

CN

-.16701

-.17240

-.16764

-.00008

CLM

.02115

.02469

.01903

-.00026

CY

.10627

.02743

-.05061

-.01961

CYN

-.01763

-.01234

-.00643

.00140

CBL

.00068

-.00310

-.00625

-.00094

CAF

.11029

.11185

.10884

-.00018

CNF

-.19025

-.19537

-.19140

-.00014

CLMF

.05041

.05369

.04912

-.00016

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA

.17147

.17079

.16825

-.00031

CN

.04271

.04027

.04555

.00037

CLM

-.01820

-.01704

-.02247

-.00053

CY

.09738

.02629

-.04508

-.01781

CYN

-.01501

-.01078

-.00638

.00108

CBL

.00208

-.00268

-.00751

-.00120

CAF

.10989

.11072

.10895

-.00013

CNF

.01987

.01791

.02312

.00041

CLMF

.01100

.01161

.00650

-.00055

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED (KE6033) ( 10 FEB 76 )

## REFERENCE DATA

SPEE = 2650.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.5800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CA	CN	CLM	CY	CYN	CEL	CAF	CNF	CLMF
-4.000	.16821	.25481	-.05736	.08735	-.01152	.00310	.10568	.23147	-.02728	
.000	.16626	.25107	-.05518	.02218	-.00907	-.00303	.10571	.22859	-.02629	
4.000	.16485	.25908	-.06054	-.04146	-.00678	-.00927	.10516	.23548	-.03146	
GRADIENT	-.00042	.00041	-.00039	-.01610	.00050	-.00155	-.00009	.00050	-.00052	

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-4.000	.16362	.46193	-.06675	.07981	-.00842	.00220	.09749	.43733	-.05549	
.000	.16108	.45694	-.08619	.02091	-.00781	-.00432	.09893	.43553	-.05623	
4.000	.15973	.45930	-.08396	-.03738	-.00778	-.01053	.09790	.43557	-.05978	
GRADIENT	-.00049	-.00025	-.00039	-.01465	.00036	-.00153	.00005	-.00010	-.00054	

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-4.000	.16053	.66116	-.11139	.08630	-.00909	.00145	.09187	.63531	-.07883	
.000	.15788	.66339	-.11317	.02156	-.00766	-.00453	.09203	.63848	-.08159	
4.000	.15763	.66255	-.11546	-.04348	-.00602	-.00903	.09134	.63752	-.08344	
GRADIENT	-.00036	.00017	-.00051	-.01622	.00038	-.00131	-.00007	.00028	-.00058	

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-4.000	.15555	.86132	-.13013	.08086	-.00362	.00283	.08567	.83480	-.09665	
.000	.15614	.86487	-.13426	.02004	-.00651	-.00345	.08554	.83811	-.10041	
4.000	.15460	.86250	-.13493	-.03934	-.00987	-.01039	.08531	.83578	-.10397	
GRADIENT	-.00012	.00015	-.00060	-.01503	-.00078	-.00165	-.00005	.00012	-.00054	

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(INLS034) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 35.000  
BDFLAP = 16.300 ELV-L = .000  
ELVN-R = 10.000 MAC = 1.250

REFERENCE DATA

REF = 2690 0.000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474 6.000 IN. YMRP = .0000 IN. YO  
BREF = 936 6.000 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
CA  
CLM  
CY  
CYN  
CBL  
CAF  
CNF  
CLMF

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
CA  
CLM  
CY  
CYN  
CBL  
CAF  
CNF  
CLMF

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = +.000  
BETA  
CA  
CLM  
CY  
CYN  
CBL  
CAF  
CNF  
CLMF

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 6.000  
BETA  
CA  
CLM  
CY  
CYN  
CBL  
CAF  
CNF  
CLMF

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
BETA  
CA  
CLM  
CY  
CYN  
CBL  
CAF  
CNF  
CLMF

REF = 2693.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA = -4.000  
 CA = .17097  
 CN = -.22991  
 CLM = .04200  
 CY = .10877  
 CYN = -.02138  
 CBL = -.00391  
 CAF = .09433  
 CMF = -.25825  
 CLMF = .07835  
 GRADIENT = 4.000  
 CA = .16983  
 CN = -.23602  
 CLM = .04220  
 CY = .03572  
 CYN = -.01587  
 CBL = -.00631  
 CAF = .09431  
 CMF = -.25417  
 CLMF = .07828  
 CA = .16815  
 CN = -.23004  
 CLM = .03834  
 CY = -.03978  
 CYN = -.00972  
 CBL = -.00809  
 CAF = .09319  
 CMF = -.25822  
 CLMF = .07447  
 CA = -.00035  
 CN = -.00002  
 CLM = -.00046  
 CY = -.01844  
 CYN = .00146  
 CBL = -.00052  
 CAF = -.00014  
 CMF = .00000  
 CLMF = -.00048

ALPHA = .000  
 BETA = -4.000  
 CA = .17241  
 CN = .04033  
 CLM = -.01139  
 CY = .10123  
 CYN = -.01995  
 CBL = .00108  
 CAF = .03520  
 CMF = .01109  
 CLMF = .02499  
 GRADIENT = 4.000  
 CA = .17331  
 CN = .03312  
 CLM = -.00527  
 CY = .03481  
 CYN = -.01494  
 CBL = -.00647  
 CAF = .03525  
 CMF = .00515  
 CLMF = .03051  
 CA = .16806  
 CN = .03358  
 CLM = -.01077  
 CY = .03415  
 CYN = -.00907  
 CBL = -.01312  
 CAF = .03537  
 CMF = .01112  
 CLMF = .02464  
 CA = -.00054  
 CN = -.00021  
 CLM = .00008  
 CY = -.01692  
 CYN = .00135  
 CBL = -.00177  
 CAF = -.00007  
 CMF = -.00011  
 CLMF = -.00004

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA = -4.000  
 CA = .17510  
 CN = .30235  
 CLM = -.05673  
 CY = .03709  
 CYN = -.01910  
 CBL = .00123  
 CAF = .03597  
 CMF = .27338  
 CLMF = .01973  
 GRADIENT = 4.000  
 CA = .17378  
 CN = .29927  
 CLM = -.05428  
 CY = .03076  
 CYN = -.01353  
 CBL = -.00605  
 CAF = .03552  
 CMF = .26557  
 CLMF = .01765  
 CA = .17105  
 CN = .30651  
 CLM = -.05098  
 CY = .03248  
 CYN = -.00925  
 CBL = -.01374  
 CAF = .03459  
 CMF = .27793  
 CLMF = .02430  
 CA = -.00051  
 CN = .00052  
 CLM = -.00053  
 CY = -.01620  
 CYN = .00123  
 CBL = -.00187  
 CAF = -.00017  
 CMF = .00000  
 CLMF = .00057

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA = -4.000  
 CA = .17445  
 CN = .52779  
 CLM = -.08332  
 CY = .03779  
 CYN = -.01938  
 CBL = .00059  
 CAF = .03021  
 CMF = .45875  
 CLMF = .04413  
 GRADIENT = 4.000  
 CA = .17033  
 CN = .53752  
 CLM = -.08782  
 CY = .03422  
 CYN = -.01425  
 CBL = -.00792  
 CAF = .03038  
 CMF = .40775  
 CLMF = .04491  
 CA = .16941  
 CN = .54253  
 CLM = -.08349  
 CY = .03390  
 CYN = -.01582  
 CBL = -.01082  
 CAF = .03032  
 CMF = .40317  
 CLMF = .04435  
 CA = -.00063  
 CN = .00201  
 CLM = -.00127  
 CY = -.01595  
 CYN = .00133  
 CBL = -.00206  
 CAF = -.00024  
 CMF = .00000  
 CLMF = .00012

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA = -4.000  
 CA = .17001  
 CN = .74759  
 CLM = -.09561  
 CY = .05513  
 CYN = -.01734  
 CBL = .00371  
 CAF = .02990  
 CMF = .71543  
 CLMF = .05528  
 GRADIENT = 4.000  
 CA = .16589  
 CN = .75937  
 CLM = -.10446  
 CY = .02853  
 CYN = -.01167  
 CBL = -.00630  
 CAF = .02949  
 CMF = .60715  
 CLMF = .05635  
 CA = .16316  
 CN = .75937  
 CLM = -.10722  
 CY = -.02534  
 CYN = -.00602  
 CBL = -.01722  
 CAF = .02916  
 CMF = .59000  
 CLMF = .05783  
 CA = -.00085  
 CN = .00165  
 CLM = -.00108  
 CY = -.01631  
 CYN = .00149  
 CBL = -.00052  
 CAF = -.00016  
 CMF = .00000  
 CLMF = .00019

PARAMETRIC DATA

RUDDER = 10.000  
 BOFLAP = 16.000  
 ELVN-R = 10.000  
 SPOCK = 35.000  
 ELVN-L = .000  
 MAC = 1.100

DATE 08 MAR 76

TABULATED FORCE DATA - OAI48 ( AMES 11-073-1 )

PAGE 350

OAI48 -140 A/B/C/R CAVITY P.. CASE P.. ADJUSTED

(KEB03S) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPCBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .900

## PARAMETRIC DATA

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .10120  
 CN -20470  
 CLM -.00207  
 CY .14143  
 CYN -.03444  
 CBL -.00080  
 CAF .04314  
 CNF -.22630  
 CLMF .02541  
 CMLF -.02453  
 CMLF -.01071  
 CMLF -.00164

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA .10367  
 CN .03965  
 CLM -.02161  
 CY .13764  
 CYN -.03321  
 CBL .00164  
 CAF .04568  
 CNF .01822  
 CLMF .00574  
 CMLF .00368  
 CMLF .00310  
 CMLF -.00146

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .10225  
 CN .27456  
 CLM -.04203  
 CY .13779  
 CYN -.03215  
 CBL -.00340  
 CAF .04464  
 CNF .25345  
 CLMF -.01500  
 CMLF -.01456  
 CMLF -.02313  
 CMLF -.00102

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA .10014  
 CN .48950  
 CLM -.05844  
 CY .12902  
 CYN -.02877  
 CBL -.00116  
 CAF .04377  
 CNF .46862  
 CLMF -.03173  
 CMLF -.03234  
 CMLF -.03617  
 CMLF -.00056

RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA .09871  
 CN .68676  
 CLM -.06703  
 CY .12041  
 CYN -.02332  
 CBL .00120  
 CAF .03980  
 CNF .66527  
 CLMF -.04003  
 CMLF -.03861  
 CMLF -.04235  
 CMLF -.00029

**DATE 08 MAY 76**

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

**PAGE 351**

(K88037) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

[illegible]

## PARAMETRIC DATA

RUDDER =	10.000	SPDRK =	35.000
BDFLAP =	16.300	ELVN-L =	.000
ELVN-R =	10.000	MACH =	.600

RN/L =	4.87	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = -4.000

CAF	CNF	CLMF
.02039	-.12410	-.01517
.02526	-.13526	-.00966
.02667	-.14196	-.00596
.02358	-.13617	-.00898
.01771	-.12326	-.01379
.00021	-.00011	-.00008

RN/L =	4.88	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = .000

CAF	CNF	CLMF
-.02638	-.06095	-.01747
-.03228	-.05272	-.01130
-.03372	-.04677	-.00803
-.03085	-.05160	-.01114
-.02435	-.06454	-.01672
-.00018	-.00014	-.00002

RN/L =	4.88	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = 4.000

CAF	CNF	CLMF
-.01871	-.24938	-.02047
.02466	-.24999	-.01606
.02565	-.24059	-.01155
.02439	-.24904	-.01494
.01930	-.25652	-.01892
.00003	-.00012	.00014

$RN/L = 4.89$ 
GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 0.05

CAF	CNF	CLMF
0.0097	.45347	-.02574
0.0143	.45345	-.02241
0.0409	.44970	-.01747
0.0230	.45223	-.01951
0.0079	.45950	-.02165
0.0013	-.00015	-.00036

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

(KE8037) ( 10 FEB 76 )

OA148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER = 10.000  
BDFLAP = 16.300  
ELVN-R = 10.000  
MACH = .600  
SPDERK = 35.000  
ELVN-L = .000

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
-8.000  
-4.000  
.000  
4.000  
8.000  
GRADIENT

CA .02270  
CN .69413  
CLM -.05690  
CY .18791  
CYN -.03054  
CBL .01168  
CAF -.03041  
CNF .67504  
CLMF -.03358  
CA .02467  
CN .69222  
CLM -.04999  
CY .11633  
CYN -.02081  
CBL .00041  
CAF -.02470  
CNF .67429  
CLMF -.02794  
CA .02478  
CN .68746  
CLM -.04287  
CY .04569  
CYN -.01392  
CBL -.01243  
CAF -.02143  
CNF .67035  
CLMF -.02140  
CA .02423  
CN .68734  
CLM -.04603  
CY .02099  
CYN -.00845  
CBL -.02260  
CAF -.02144  
CNF .67013  
CLMF -.02460  
CA .02002  
CN .69536  
CLM -.05122  
CY .09841  
CYN .00160  
CBL -.03354  
CAF -.02445  
CNF .67827  
CLMF -.02953  
CA .00006  
CN -.00061  
CLM .00049  
CY -.01715  
CYN .00155  
CBL -.00277  
CAF .00041  
CNF -.00052  
CLMF .00042

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA .20726  
CN -.16246  
CLM .04445  
CY .08384  
CYN -.00759  
CBL .00374  
CAF .14661  
CNF -.18405  
CLMF .07170  
CA .21044  
CN -.16794  
CLM .05094  
CY .00650  
CYN -.00244  
CBL .00015  
CAF .14879  
CNF -.19020  
CLMF .07888  
CA .20976  
CN -.16343  
CLM .04573  
CY -.07015  
CYN .00211  
CBL -.00251  
CAF .14669  
CNF -.18652  
CLMF .07479  
CA .00031  
CN -.00031  
CLMF .00039

ALPHA = .000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA .20780  
CN .05092  
CLM .00035  
CY .07735  
CYN -.00666  
CBL .00577  
CAF .14477  
CNF .02785  
CLMF .02932  
CA .20858  
CN .04818  
CLM .00541  
CY .00709  
CYN -.00228  
CBL .00042  
CAF .14657  
CNF .02520  
CLMF .03432  
CA .20927  
CN .05111  
CLM .00150  
CY -.06235  
CYN .00112  
CBL -.00384  
CAF .14572  
CNF .02760  
CLMF .03119  
CA .00002  
CN .00002  
CLM .00016  
CY -.01746  
CYN .00097  
CBL -.00120  
CAF .00012  
CNF -.00003  
CLMF .00023

(KE8038) ( 10 FEB 76 )

OA148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

PARAMETRIC DATA

RUDDER = 10.000  
BDFLAP = 16.300  
ELVN-R = 10.000  
MACH = 1.400  
SPOBRK = 85.000  
ELVN-L = 10.000

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA .20726  
CN -.16246  
CLM .04445  
CY .08384  
CYN -.00759  
CBL .00374  
CAF .14661  
CNF -.18405  
CLMF .07170  
CA .21044  
CN -.16794  
CLM .05094  
CY .00650  
CYN -.00244  
CBL .00015  
CAF .14879  
CNF -.19020  
CLMF .07888  
CA .20976  
CN -.16343  
CLM .04573  
CY -.07015  
CYN .00211  
CBL -.00251  
CAF .14669  
CNF -.18652  
CLMF .07479  
CA .00031  
CN -.00031  
CLMF .00039

ALPHA = .000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA .20780  
CN .05092  
CLM .00035  
CY .07735  
CYN -.00666  
CBL .00577  
CAF .14477  
CNF .02785  
CLMF .02932  
CA .20858  
CN .04818  
CLM .00541  
CY .00709  
CYN -.00228  
CBL .00042  
CAF .14657  
CNF .02520  
CLMF .03432  
CA .20927  
CN .05111  
CLM .00150  
CY -.06235  
CYN .00112  
CBL -.00384  
CAF .14572  
CNF .02760  
CLMF .03119  
CA .00002  
CN .00002  
CLM .00016  
CY -.01746  
CYN .00097  
CBL -.00120  
CAF .00012  
CNF -.00003  
CLMF .00023



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8038) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = 10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.20395	.26717	-.04075	.07032	-.00492	.00735	.13992	.24344	-.01065
.20449	.26198	-.03535	.00751	-.00259	.00098	.14239	.23883	-.00670
.20556	.26620	-.03871	-.05588	.00115	-.00450	.14260	.24277	-.00880
.00020	-.00012	.00025	-.01578	.00047	-.00148	.00033	-.00008	.00023

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.19838	.47626	-.07520	.06538	-.00323	.00804	.13280	.45179	-.04411
.19935	.47800	-.07416	.00824	-.00260	.00121	.13496	.45406	-.04394
.20000	.47850	-.07388	-.04978	-.00322	-.00481	.13633	.45452	-.04300
.00020	.00028	.00017	-.01439	.00000	-.00161	.00044	.00034	.00014

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.19489	.68103	-.10285	.06810	-.00317	.00784	.12732	.65564	-.07092
.19524	.68728	-.10456	.00845	-.00263	.00229	.12837	.66230	-.07298
.19632	.67972	-.10352	-.05544	-.00197	-.00342	.13118	.65490	-.06895
.00020	-.00016	.00023	-.01544	.00015	-.00141	.00048	-.00009	.00025

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.18963	.88417	-.12385	.06435	.00081	.01088	.12156	.85906	-.09246
.19083	.88661	-.12505	.00663	-.00234	.00297	.12382	.86126	-.09302
.19239	.88287	-.12336	-.05196	-.00585	-.00445	.12609	.85744	-.09069
.00034	-.00016	.00006	-.01454	-.00083	-.00192	.00057	-.00020	.00022

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED (KE8039) ( 10 FEB 76 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = .0.000 SPDECK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .2186  
 .21337  
 .21345  
 .00020  
 CN -.18368  
 -.19221  
 -.18670  
 -.00038  
 CLM .05843  
 .06492  
 .05988  
 .00018  
 CY .08282  
 .00708  
 -.06712  
 -.01874  
 CYN -.00873  
 -.00296  
 .00189  
 .00133  
 CBL .00404  
 .00045  
 -.00241  
 -.00081  
 CAF .14141  
 .14509  
 .14429  
 .00036  
 CNF -.20928  
 -.21728  
 -.21264  
 -.00042  
 CLMF .09069  
 .09640  
 .09265  
 .00025

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .21226  
 .21299  
 .21419  
 .00024  
 CN .05816  
 .05633  
 .05954  
 .00017  
 CLM .00353  
 .00643  
 .00215  
 -.00017  
 CY .07681  
 .00723  
 -.06065  
 -.01718  
 CYN -.00740  
 -.00238  
 .00084  
 .00103  
 CBL .00566  
 .00050  
 -.00337  
 -.00113  
 CAF .14324  
 .14491  
 .14389  
 .00008  
 CNF .03270  
 .03105  
 .03319  
 .00006  
 CLMF .03582  
 .03831  
 .03540  
 -.00005

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .21162  
 .21266  
 .21268  
 .00013  
 CN .30098  
 .29590  
 .30171  
 .00009  
 CLM -.04963  
 -.04624  
 -.05101  
 -.00017  
 CY .06975  
 .00796  
 -.05449  
 -.01553  
 CYN -.00579  
 -.00272  
 -.00111  
 .00058  
 CBL .00777  
 .00090  
 -.00442  
 -.00152  
 CAF .13905  
 .14108  
 .13992  
 .00011  
 CNF .27402  
 .26913  
 .27460  
 .00007  
 CLMF .01574  
 -.01242  
 -.01670  
 -.00012

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .20626  
 .20782  
 .20725  
 .00012  
 CN .52973  
 .53096  
 .53752  
 .00097  
 CLM -.08802  
 -.08854  
 -.09279  
 -.00060  
 CY .06338  
 .00892  
 -.04753  
 -.01386  
 CYN -.00476  
 -.00294  
 -.00319  
 .00020  
 CBL .01096  
 .00230  
 -.00509  
 -.00201  
 CAF .13035  
 .13146  
 .13158  
 .00015  
 CNF .50127  
 .50251  
 .50903  
 .00097  
 CLMF -.05209  
 -.05273  
 .13158  
 -.00053

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .20082  
 .20170  
 .20129  
 .00006  
 CN .76009  
 .76490  
 .76022  
 .00002  
 CLM -.11723  
 -.11850  
 -.11836  
 -.00014  
 CY .06025  
 .00819  
 -.04884  
 -.01364  
 CYN -.00317  
 -.00268  
 -.00333  
 -.00002  
 CBL .01434  
 .00330  
 -.00541  
 -.00247  
 CAF .12298  
 .12479  
 .12479  
 .00023  
 CNF .73091  
 .73577  
 .73148  
 .00007  
 CLMF -.08024  
 -.08171  
 -.08163  
 -.00017

( 10 FEB 76 )  
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TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )  
 OA148 -140 A/B/C/R CAVITY P.: BASE P.: ADJUSTED

CA148 -140 A/B/C/R CAVITY P.: BASE P.: ADJUSTED

DATE 08 MAY 76

### PARAMETRIC DATA

RUDDER	=	10.000	SPOBRK	=	85.000
BOFLAP	=	16.300	ELVN-L	=	10.000
ELVN-R	=	10.000	MACH	=	1.100

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

3.19	GRADIENT INTERVAL =	-5.00/	5.00
------	---------------------	--------	------

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-4.000										
	-4.000	.21134	-.21492	.05006	.07937	-.00847	.00259	.13028	-.23481	-.08799
		.21137	-.21485	.05345	.00940	-.00429	.00056	.13179	-.24441	.09075
	.000				-.06093	-.00082	.00010	.13214	-.23965	.08893
	4.000	.21274	-.21003	.05120	-.01754	.00096	-.00031	.00223	-.00061	.00012

SEN/I = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	=	.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA		-4.000	.20881	.06572	-.07071	.07386	-.00814	.00721	.12834	.03696	.03049
		.000	.20845	.06196	.00301	.00979	-.00426	.00095	.03272	.03361	
		4.000	.06731	.00962	-.05485	.00127	-.00410	-.00410	.12992	.03747	.02789
GRADIENT			.20694	.06731	-.00333	-.01596	.00086	-.00141	-.00011	.00006	-.00032

BN/I = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

**BN/1 = 3.18 GRADIENT INTERVAL = -5.00/ 5.00**

[illegible]

RN/I =	3.18	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
12.000										
	4.000	.20277	.80787	-.11526	.06320	-.00701	.01523	.11437	.77527	-.07391
		.20266	.80540	-.11365	.00083	-.00053	.00425	.11700	.77387	-.07357
	4.000			-.11764	-.05827	.00121	-.00264	.11657	.77540	-.07671
		.20243	.80738	.0243				.00029	.00002	-.00035
	GRADIENT	-.00004	-.00006	-.00030	-.01518	.00103	-.00223			

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 356

(KE8041) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 525.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .13707  
 .13791  
 .13582  
 -.00016

CN .15803  
 .16504  
 .16582  
 -.00097

CLM .01406  
 .00820  
 .00395  
 .00051

CY .10234  
 .01996  
 .05686  
 .01990

CYN .01859  
 .00938  
 .00252  
 .00201

CBL .00603  
 .00300  
 .00185  
 -.00052

CAF .06826  
 .06949  
 .06669  
 -.00020

CNF .18392  
 .19049  
 .19123  
 -.00091

CLMF .01880  
 .02383  
 .02225  
 .00043

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA .13837  
 .13659  
 .13654  
 -.00023

CN .07772  
 .07023  
 .07199  
 -.00072

CLM .02978  
 .02323  
 .02593  
 .00048

CY .09731  
 .01985  
 .05435  
 .01896

CYN .01793  
 .00878  
 .00145  
 .00206

CBL .00972  
 .00326  
 .00140  
 -.00139

CAF .07081  
 .07151  
 .06830  
 -.00031

CNF .05267  
 .04540  
 .04683  
 -.00073

CLMF .00209  
 .00797  
 .00560  
 .00044

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .13614  
 .13543  
 .13514  
 -.00012

CN .33506  
 .32654  
 .32969  
 -.00067

CLM .05919  
 .05308  
 .05597  
 .00028

CY .09519  
 .01863  
 .05761  
 .01910

CYN .01720  
 .00790  
 .00003  
 .00215

CBL .00942  
 .00306  
 .00220  
 -.00145

CAF .06940  
 .06967  
 .06746  
 -.00024

CNF .30996  
 .30208  
 .30469  
 -.00066

CLMF .02625  
 .02227  
 .02466  
 .00020

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA .13746  
 .13586  
 .13431  
 -.00039

CN .55613  
 .55844  
 .55966  
 .00044

CLM .07620  
 .07552  
 .07801  
 .00023

CY .08975  
 .01503  
 .06005  
 .01873

CYN .01502  
 .00693  
 .00002  
 .00188

CBL .01139  
 .00460  
 .00136  
 -.00159

CAF .07115  
 .07068  
 .07000  
 -.00014

CNF .53140  
 .53413  
 .53547  
 .00051

CLMF .04486  
 .04473  
 .04747  
 -.00033

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA .13716  
 .13454  
 .13618  
 -.00012

CN .75166  
 .75216  
 .74989  
 -.00022

CLM .08340  
 .08050  
 .08464  
 .00015

CY .08269  
 .01184  
 .05693  
 -.01745

CYN .01032  
 .00655  
 .00400  
 .00079

CBL .01341  
 .00396  
 .00364  
 -.00213

CAF .06917  
 .07027  
 .07255  
 .00042

CNF .72632  
 .72866  
 .72624  
 -.00001

CLMF .05192  
 .05114  
 .05465  
 -.00034

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(KE8042) : 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP	=	1075.6800	IN.	X0
YMRP	=	.0000	IN.	Y0
ZMRP	=	375.0000	IN.	Z0

RUDDER	=	10.000	SPOBRK	=	85.000
BOFLAP	=	16.300	ELVN-L	=	10.000
ELVN-R	=	10.000	MACH	=	.600

## PARAMETRIC DATA

$RN/I =$	4.87	GRADIENT INTERVAL =	-5.00/	5.00
----------	------	---------------------	--------	------

ALPHA	=	-4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA		-8.000	10416	-05742	-04584	17348	-02427	-00790	04913	-07785	-01911
		-4.000	11075	-07160	-03667	09569	-01462	-00419	05516	-09206	-01019
		.000	11554	-07982	-03318	01992	-00853	-00310	-00556	-10206	-00556
		4.000	11529	-07951	-03469	-05351	-00358	-00339	04868	-10381	-00501
		8.000	10806	-06389	-04239	-13353	-00586	-00063	04158	-08813	-01267
GRADIENT		00057	00057	-00099	-00025	-01865	-00138	-00010	-00081	-00147	-00065

**RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00**

ALPHA	=	.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA		-8.000	.11254	.12627	-.04577	.16545	-.02319	.01188	.05586	.10542	-.01880
		-4.000	.11659	.11700	-.03985	.09086	-.01379	.00612	.06150	.09633	-.01282
		.000	.12036	.10830	-.03517	.01918	-.00785	.00271	.06107	.06550	-.00775
		4.000	.12090	.11200	-.03628	-.05283	-.00260	.00078	.05554	.08774	-.00848
			.11429	.12588	-.04573	-.13316	.00730	.00436	.04813	.10146	-.01572
GRADIENT		8.000	.00054	-.00062	.00020	-.01756	.00140	-.00067	-.00075	-.00107	-.00054

**RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00**

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
4.000										
	BETA									
	-8.000	10714	31787	-04663	15994	-02234	01598	04955	25654	-01923
	-4.000	10968	31990	-04636	08866	-01327	00786	05180	29867	-01879
	0.000	11170	32678	03984	01760	00635	00239	05423	26551	-01316
	4.000	11217	31259	04445	05372	00146	03149	04699	28825	-01438
	8.000	10573	32228	05088	13559	00920	00907	04210	29802	-02094
GRADIENT		00091	-00091	00028	-01780	00148	-00117	-00060	-00130	-00055

BN/L =	4.88	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
8.000	8.000	.08582	.53145	-.05595	.15590	-.02247	.02002	.02764	.50987	-.02904
-8.000	-8.000	.09708	.53381	-.05340	.08483	-.01268	.00969	.03243	.51011	-.02659
-4.000	-4.000	.03753	.51518	-.04812	.01425	-.00595	.00244	.03298	.49392	-.02138
4.000	4.000	.03829	.51536	-.05203	-.05601	-.00020	-.00305	.02822	.49192	-.02236
8.000	8.000	.05621	.52906	-.05552	-.13634	.01075	.01265	.02074	.50404	-.02836
GRADIENT	GRADIENT	.00040	-.00187	.00017	.01761	.00156	-.00159	-.00053	-.00227	.00054

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 358

(KE8042) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = 12.000

BETA

CA .05874  
 .06316  
 .06465  
 .06630  
 .06020  
 .00039

GRADIENT

CN .75339  
 .75270  
 .74642  
 .74365  
 .75386  
 -.00113

CLM

CY .14378  
 .07609  
 .01003  
 -.05596  
 -.13915  
 -.01682

CYN

CBL .02600  
 .01376  
 .00311  
 -.00533  
 -.01640  
 -.00239

CAF

CNF .73225  
 .73143  
 .72543  
 .71987  
 .72997  
 -.00145

CLMF

-.03755  
 -.03451  
 -.02935  
 -.03148  
 -.03676  
 .00038

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8043) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = -4.000

BETA

CA .12119  
 .12448  
 .12009  
 -.00014

GRADIENT

CN -.10919  
 -.12338  
 -.12248  
 -.00166

CLM

CY .08699  
 .00319  
 -.08063  
 -.02095

CYN

CBL .00083  
 -.00225  
 -.00463  
 -.00068

CAF

CNF -.13225  
 -.14709  
 -.14586  
 -.00159

CLMF

-.02459  
 -.01647  
 -.02069  
 .00049

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

RN/L = 3.67 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.65 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

CA .12480  
 .12335  
 .12360  
 -.00015

GRADIENT

CN .12198  
 .11628  
 .11734  
 -.00058

CLM

CY .08073  
 .00189  
 -.07832  
 -.01988

CYN

CBL .00585  
 -.00108  
 -.00780  
 -.00171

CAF

CNF .09836  
 .09346  
 .09437  
 -.00050

CLMF

-.03949  
 -.03524  
 -.03793  
 .00020

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 359

(KE8043) 10 FEB 76

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

RUDDER = .000 SPCBRK = 55.000  
BOFLAP = 22.500 ELVN-L = 10.000  
ELVN-R = 10.000 MACH = .900

PARAMETRIC DATA

RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.12164	.37765	-.09876	.08084	-.01034	.00572	.05344	.35470	-.06864
.12135	.37008	-.09340	.00188	.00022	-.00116	.05422	.34744	-.05402
.12209	.37802	-.09571	-.07359	.01087	-.00825	.05607	.35525	-.06908
.00006	.00005	.00001	-.02005	.00265	-.00175	.00033	.00007	-.00005

RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.12221	.59663	-.11815	.07649	-.00851	.00751	.05412	.57366	-.08799
.12176	.60400	-.11908	-.00144	.00077	.00092	.05444	.58112	-.06831
.12153	.60449	-.12026	-.08163	.01050	-.00681	.05438	.58135	-.05028
-.00008	.00059	-.00026	-.01979	.00238	-.00179	.00003	.00056	-.00029

RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.12374	.79151	-.12616	.06880	-.00423	.01069	.05360	.76641	-.09422
.12174	.79360	-.12366	-.00165	.00037	.00082	.05491	.76991	-.09339
.12437	.78904	-.12810	-.07770	.00589	-.00805	.05585	.76343	-.05626
.00008	-.00043	-.00024	-.01831	.00127	-.00234	.00028	-.00037	-.00026

DATE 09 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 360

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(180344) 10 FEB 76

## REFERENCE DATA

REF = 2690 0000 SQ.FT.  
 LREF = 474.8000 IN.  
 SREF = 936.6900 IN.  
 SCALE = .0300

XMRP = 1076.6900 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPZEEA = 55.000  
 BDFLAP = 22.500 ELN-L = 10.000  
 ELN-R = 10.000 MACH = .600

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.0351	-.02351	-.07566	.15502	-.01611	.00429	.03429	-.04346	-.04973
-4.000	.0351	-.03377	-.07517	.07523	-.00593	.00002	.03573	-.05502	-.04464
.000	.0355	-.04232	-.06577	.00150	.00045	-.00194	.04325	-.06216	-.04108
4.000	.0334	-.03784	-.07660	-.07284	.00555	-.00344	.03522	-.05754	-.04468
8.000	.03289	-.02505	-.07481	-.15457	.01663	-.00359	.03419	-.04528	-.04870
GRADIENT	.00011	-.00031	-.00005	-.01651	.00157	-.00143	-.00009	-.00037	-.00001

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.0309	-.06191	-.07756	.14656	-.01612	.00875	.04039	-.04754	-.05113
-4.000	.0350	-.07350	-.07179	-.00578	.00225	.00441	.04759	-.04724	-.04724
.000	.0343	-.06931	-.06970	.00343	-.00193	.00193	.04759	-.04724	-.04724
4.000	.0343	-.07349	-.07257	.00706	-.00559	.00475	.04759	-.04724	-.04724
8.000	.0343	-.07655	-.07530	.01723	-.01099	.00303	.04759	-.04724	-.04724
GRADIENT	.00000	-.00004	-.00004	.00160	-.00004	.00004	.00004	-.00004	-.00002

RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.0301	.05293	-.08291	.14810	-.01722	.01337	.03230	.33552	-.05634
-4.000	.0347	.0572	-.07974	.07149	-.00591	.00157	.07587	.33455	-.05358
.000	.0349	.0572	-.07420	.00955	.00073	-.00184	.03900	.33620	-.04907
4.000	.0347	.0572	-.08144	-.00594	.00765	-.00761	.03518	.33624	-.05497
8.000	.0347	.0572	-.08953	-.01642	.01826	-.01513	.02999	.34342	-.05749
GRADIENT	.00070	.00020	-.00021	-.01618	.00170	-.00152	.00004	.00021	-.00017

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 6.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.03144	.05831	-.08291	.14502	-.01826	.01780	.01085	.54840	-.05650
-4.000	.0324	.05807	-.08291	.07045	-.00633	.00622	.01531	.54725	-.05375
.000	.0324	.05807	-.08291	.00035	.00172	-.00191	.01713	.54725	-.05375
4.000	.0324	.05807	-.08291	-.00594	.00822	-.00970	.01553	.54725	-.05375
8.000	.0324	.05807	-.08291	-.01551	.01924	-.01860	.00551	.54725	-.05375
GRADIENT	.00070	.00020	-.00021	-.01618	.00170	-.00152	.00004	.00021	-.00017





(1)  
4  
(1)  
4  
(1)  
4

4-14  
362

TABLE 1. ESTIMATED FORCE DATA - OAI49 (AMES 11-073-1)

— 10 —

DATE - 14C A/B/C/R CAVITY P. BASE P. ADJUSTED

SECRET

[illegible]

1962	=	1976	6800	14.	40
1962	=		5000	14.	40
1962	=	375	0000	14.	20

$R^2 = 3.5$  GRADIENT INTERVAL = -5.00/ 5.00

Q

[illegible]

A-101

[illegible][illegible][illegible]

10

1. The first group of people who are not in the majority are the people who are not in the majority.

DATE 03 MAY 76

TABULATED FORCE DATA - 04143 ( AMES 11-073-1 )

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04148 -143 A/B/C/R CAVITY P.L. BASE F.L. ADJUSTED

WES-61 10 FEB 76 )

# REFERENCE DATA

SEEP = 2930 0000 30 FT.  
 SEEP = 774.8000 IN.  
 SEEP = 936.6000 IN.  
 SCALE = 030

CA = 1076.6000 IN. X0  
 YMRP = 1000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

FOODER = .000  
 SEVERK = 55.000  
 EFLAP = 4.000  
 ELEV-R = .600

ALPHA = 4.000

BETA  
 -8.000  
 -1.000  
 1.000  
 8.000  
 GRADIENT

CA  
 .08273  
 .08282  
 .08291  
 .08297  
 .08304  
 .08311  
 .08318

CN  
 .07216  
 .06993  
 .06774  
 .06556  
 .06338  
 .06119  
 .05901

CLM  
 .03367  
 .03450  
 .03533  
 .03616  
 .03699  
 .03782  
 .03865

CY  
 .15666  
 .07842  
 .00000  
 .07842  
 .15666  
 .23490  
 .31314

CYN  
 -.01641  
 -.01634  
 -.01627  
 -.01620  
 -.01613  
 -.01606  
 -.01599

CEL  
 .00234  
 .00122  
 .00010  
 .00000  
 .00000  
 .00000  
 .00000

CF  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CFE  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CLMF  
 .00418  
 .00225  
 .00032  
 .00000  
 .00000  
 .00000  
 .00000

ALPHA = .000

BETA  
 -8.000  
 -1.000  
 1.000  
 8.000  
 GRADIENT

CA  
 .08285  
 .08271  
 .08256  
 .08241  
 .08226  
 .08211  
 .08196

CN  
 .07216  
 .06993  
 .06774  
 .06556  
 .06338  
 .06119  
 .05901

CLM  
 .03367  
 .03450  
 .03533  
 .03616  
 .03699  
 .03782  
 .03865

CY  
 .15666  
 .07842  
 .00000  
 .07842  
 .15666  
 .23490  
 .31314

CYN  
 -.01641  
 -.01634  
 -.01627  
 -.01620  
 -.01613  
 -.01606  
 -.01599

CEL  
 .00234  
 .00122  
 .00010  
 .00000  
 .00000  
 .00000  
 .00000

CF  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CFE  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CLMF  
 .00418  
 .00225  
 .00032  
 .00000  
 .00000  
 .00000  
 .00000

ALPHA = 4.000

BETA  
 -8.000  
 -1.000  
 1.000  
 8.000  
 GRADIENT

CA  
 .08394  
 .08514  
 .08634  
 .08754  
 .08874  
 .08994  
 .09114

CN  
 .06239  
 .06013  
 .05787  
 .05561  
 .05335  
 .05109  
 .04883

CLM  
 .03319  
 .03314  
 .03309  
 .03304  
 .03299  
 .03294  
 .03289

CY  
 .15350  
 .07474  
 .00000  
 .07474  
 .15350  
 .23490  
 .31314

CYN  
 -.01708  
 -.01693  
 -.01678  
 -.01663  
 -.01648  
 -.01633  
 -.01618

CEL  
 .01110  
 .00893  
 .00676  
 .00459  
 .00242  
 .00025  
 .00000

CF  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CFE  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CLMF  
 .00738  
 .00498  
 .00258  
 .00018  
 .00000  
 .00000  
 .00000

ALPHA = 8.000

BETA  
 -8.000  
 -1.000  
 1.000  
 8.000  
 GRADIENT

CA  
 .08311  
 .08431  
 .08551  
 .08671  
 .08791  
 .08911  
 .09031

CN  
 .06637  
 .06411  
 .06185  
 .05959  
 .05733  
 .05507  
 .05281

CLM  
 .04022  
 .03960  
 .03898  
 .03836  
 .03774  
 .03712  
 .03650

CY  
 .15332  
 .07226  
 .00000  
 .07226  
 .15332  
 .23490  
 .31314

CYN  
 -.01754  
 -.01749  
 -.01744  
 -.01739  
 -.01734  
 -.01729  
 -.01724

CEL  
 .00891  
 .00674  
 .00457  
 .00240  
 .00023  
 .00000  
 .00000

CF  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CFE  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CLMF  
 .01108  
 .00868  
 .00628  
 .00388  
 .00148  
 .00000  
 .00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8046) ( 10 FEB 76 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = .000  
 BDFLAP = 22.500  
 ELVN-R = 4.000  
 ELVN-L = 55.000  
 MACH = 4.000

## PARAMETRIC DATA

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.03560	.69881	-.04636	.13961	-.01669	.02203	-.02326	.66925	-.02128
-4.000	.03217	.68502	-.03997	.06743	-.00467	.00868	-.01781	.66500	-.01537
.000	.03879	.67569	-.03390	.00147	.00168	-.00227	-.01532	.65985	-.00954
4.000	.03801	.68458	-.03956	-.06758	.00750	-.01319	-.01658	.65527	-.01470
8.000	.03333	.69123	-.04565	-.14610	.01697	-.02395	-.02081	.57187	-.02076
GRADIENT	-.00002	-.00006	.00005	-.01688	.00152	-.00261	.00015	-.00009	.00008

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8047) ( 10 FEB 76 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = -10.000  
 BDFLAP = 16.300  
 ELVN-R = 4.000  
 ELVN-L = 85.000  
 MACH = 4.000

## PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-4.000	.20427	-.20396	.07793	.07298	-.00174	-.00041	.14279	-.22623	-.10512
.000	.20592	-.20927	.08187	-.00401	.00246	-.00295	.14618	-.23063	-.10946
4.000	.20351	-.20229	.07610	-.08381	.00845	-.00654	.14371	-.22427	-.10423
GRADIENT	-.00010	.00021	-.00023	-.01960	.00127	-.00077	.00011	.00024	-.00024

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-4.000	.20279	.01047	.03337	.06553	-.00059	.00102	.14030	-.01253	-.06248
.000	.20423	.01133	.03499	-.00460	.00271	-.00289	.14213	-.01166	-.06414
4.000	.20344	.01417	.03137	-.07646	.00766	-.00796	.14090	-.00895	-.06096
GRADIENT	.00008	.00046	-.00025	-.01775	.00103	-.00112	.00007	.00045	-.00019

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 365

CA148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

( KE8047 ) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = -10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.22389	-.00627	.05942	.00172	.00219	.13350	.20012	.02399
-4.000	.22094	-.00437	-.00430	.00320	-.00342	.13522	.19734	.02581
.000	.22992	-.00965	-.07000	.00605	-.00973	.13405	.20581	.02119
4.000	.00075	-.00042	-.01618	.00054	-.00149	.00007	.00071	-.00035
GRADIENT								

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.43005	-.03563	.05331	.00359	.00297	.12355	.40537	.00525
-4.000	.42675	-.03693	-.00456	.00359	-.00312	.12610	.40275	.00827
.000	.43079	-.03938	-.06393	.00415	-.01007	.12565	.40657	.00828
4.000	.00009	-.00034	-.01464	.00006	-.00163	.00026	.00015	-.00038
GRADIENT								

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.63313	-.06463	.05979	.00241	.00198	.11720	.60810	.03270
-4.000	.63475	-.06631	-.00501	.00333	-.00257	.11823	.60991	.03434
.000	.63045	-.06500	-.07218	.00560	-.00724	.11843	.60549	.03297
4.000	-.00034	-.00005	-.01650	.00040	-.00115	.00015	-.00033	-.00093
GRADIENT								

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.83047	-.08348	.05632	.00665	.00480	.10993	.80457	.05051
-4.000	.83895	-.08908	-.00552	.00373	-.00127	.10990	.81233	.05548
.000	.83061	-.08450	-.06687	.00131	-.00789	.11118	.80452	.05130
4.000	.00002	-.00013	-.01540	-.00067	-.00159	.00016	-.00001	-.00010
GRADIENT								

DATE 08 MAY 76

TABULATED FORCE DATA - OAI48 ( AMES 11-073-1 )

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OAI48 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

( KE8048 ) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .20445  
 .20706  
 .20646  
 .00025

CN .23572  
 .24316  
 .23651  
 .00010

CLM .09860  
 .10442  
 .09753  
 .00013

CY .06911  
 .00638  
 .08366  
 .01910

CYN -.00208  
 .00303  
 .00934  
 .00143

CBL .00002  
 .00323  
 .00721  
 .00090

CAF .13719  
 .13993  
 .13708  
 .00001

CNF -.26029  
 .26778  
 .26223  
 .00024

CLMF .12965  
 .13566  
 .13029  
 .00008

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .20429  
 .20625  
 .20678  
 .00031

CN .00898  
 .00618  
 .00685  
 .00002

CLM .04288  
 .04538  
 .04163  
 .00016

CY .06313  
 .00511  
 .07615  
 .01741

CYN -.00091  
 .00279  
 .00814  
 .00113

CBL .00122  
 .00278  
 .00795  
 .00115

CAF .13526  
 .13802  
 .13670  
 .00018

CNF -.01671  
 .01939  
 .01721  
 .00006

CLMF .07550  
 .07811  
 .07470  
 .00010

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .20186  
 .20378  
 .20461  
 .00034

CN .24448  
 .24272  
 .25099  
 .00031

CLM .00467  
 .00469  
 .00689  
 .00053

CY .05727  
 .00455  
 .07023  
 .01594

CYN .00138  
 .00308  
 .00654  
 .00065

CBL .00237  
 .00303  
 .00960  
 .00150

CAF .13025  
 .13245  
 .13239  
 .00027

CNF .21778  
 .21599  
 .22393  
 .00077

CLMF .02944  
 .02941  
 .02579  
 .00046

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .19538  
 .19605  
 .19708  
 .00021

CN .47440  
 .46702  
 .47062  
 .00047

CLM .04322  
 .04281  
 .04290  
 .00004

CY .05136  
 .00521  
 .06512  
 .01456

CYN .00313  
 .00326  
 .00507  
 .00024

CBL .00302  
 .00280  
 .01070  
 .00172

CAF .11959  
 .12260  
 .12250  
 .00036

CNF .44629  
 .43940  
 .44268  
 .00045

CLMF .00741  
 .00739  
 .00693  
 .00006

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .18996  
 .18929  
 .19030  
 .00004

CN .69219  
 .69668  
 .69143  
 .00009

CLM .06786  
 .07105  
 .06839  
 .00007

CY .05203  
 .00791  
 .06751  
 .01494

CYN .00315  
 .00446  
 .00583  
 .00034

CBL .00631  
 .00099  
 .01102  
 .00217

CAF .11037  
 .11057  
 .11393  
 .00045

CNF .66281  
 .66741  
 .66272  
 .00001

CLMF .03050  
 .03376  
 .03162  
 .00014

(KF8049) ( 10 FEB 76 )

## REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.6800	IN.	XO	RUDDER =	-10.000	SPDRBK =	85.000
LREF =	474.8000	IN.	YMRP =	.0000	IN.	YO	BOFLAP =	16.300	ELVN-L =	4.000
BREF =	936.6800	IN.	ZMRP =	375.0000	IN.	ZO	ELVN-R =	4.000	MACH =	1.100
SCALE =	.0300									

## PARAMETRIC DATA

PN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-4.000										
	-4.000	.20073	-.26821	.09905	.05988	.00114	-.00402	1.2240	-.29695	1.3549
	.000	.20146	-.27648	.09979	-.01110	.00528	-.00505	1.2335	-.30602	1.3730
	4.000	.20176	-.27099	.09558	-.08361	.01025	-.00627	1.2073	-.30157	1.3456
GRADIENT		.00012	.00035	-.00443	-.01794	.00114	-.00028	-.00021	-.00058	-.00012

RN/L =	3.20	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.000			.00316	.04406	.05578	.00078	.00178	.12116	-.02530	
	-4.000	.19742	-.00502	.04939	-.00913	.00449	-.00449	.12097	-.03359	.08543
	.000	.19589		.04206	-.07701	.00985	-.01172	.11912	-.02685	.07956
	4.000	.19790	.00279	.00205	-.01650	.00113	-.00169	-.00025	-.00019	-.00011
		GRADIENT	.00006	-.00005						

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.1

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
4.000		.19639	.26955	-.00959	.05071	.00245	.00200	.11665	.23997	.02836
	-4.000	.19718	.26566	-.00694	-.00769	.00436	-.00439	.11825	.23621	.03060
	.000	.19584	.27018	-.00806	-.07084	.00842	-.11165	.11938	.24011	.03034
	4.000	.19944	.00008	.00019	-.0519	.00075	-.00171	.00034	.00002	.00025
	GRADIENT	.00043								

RN/L =	3.20	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
8.000										
	4.000	.19436	.49598	-.03528	.05343	.00048	-.00236	.11092	.46503	.00448
	-4.000	.19351	.49410	-.03990	-.00757	.00399	-.00412	.10993	.46306	-.00029
	4.000	.19691	.49370	-.03696	-.07234	.00962	-.01071	.11310	.46232	.00321
	-4.000	.19328	.49028	-.03021	-.01572	.00114	-.00163	.00027	-.00034	-.00016
	GRADIENT	.00032								

RN/L =	3.19	GRADIENT INTERVAL =	-5.03/	5.00
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[illegible]

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(KE8050) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

PARAMETRIC DATA

REFERENCE DATA

SPRF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = -10.000 SPOBRK = 65.000  
 LPEF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = 4.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 4.000 MACH = .900  
 SCALE = .0300

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.12251	-.23108	.03466	.06094	.00191	-.00753	.05983	-.25436	.06499
.12717	-.23677	.03717	-.02087	.00387	-.00796	.06133	-.26083	.06801
.12582	-.23238	.03026	-.10618	.01989	-.00904	.05848	-.25719	.06128
.00041	-.00016	-.00055	-.02089	.00225	-.00019	-.00017	-.00035	-.00046

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.12392	.00127	.02202	.06119	.00055	-.00308	.06116	-.02180	.05194
.12503	-.00133	.02335	-.01828	.00898	-.00700	.06373	-.02472	.05282
.12670	.00260	.01733	-.10132	.00942	-.01159	.05938	-.02231	.04877
.00035	.00017	-.00059	-.02031	.00235	-.00106	-.00022	-.00006	-.00040

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.12093	.23980	.00743	.06326	-.00046	-.00335	.06006	.20732	.03656
.12277	.22635	.00977	-.01548	.00796	-.00789	.06239	.20390	.03840
.12428	.23705	.00241	-.09347	.01853	-.01261	.05940	.21257	.03318
.00042	.00091	-.00063	-.02022	.00237	-.00116	-.00008	.00056	-.00042

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.12132	.43911	-.00300	.05782	.00130	.00075	.06218	.41684	.02558
.12147	.44104	-.00396	-.01630	.00757	-.00552	.06055	.41836	.02470
.12229	.44425	-.00873	-.09435	.01655	-.01295	.05905	.42045	.02117
.00012	.00064	-.00072	-.01902	.00191	-.00171	-.00039	.00045	-.00055

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.12098	.64416	-.01765	.05871	.00239	.00409	.05991	.62140	.01176
.12331	.64314	-.01485	-.01597	.00616	-.00345	.06112	.61986	.01437
.12330	.63970	-.01845	-.09397	.01288	-.01127	.05988	.61565	.01193
.00029	-.00056	-.00010	-.01909	.00131	-.00192	.00001	-.00072	.00002



DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED (KE8051) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA .09593  
 CN -15007  
 CLM .00412  
 CY .13086  
 CYN -.00479  
 CBL -.07457  
 CAF .04091  
 CNF -.17021  
 CLMF .02989  
 .10158  
 .10393  
 .10284  
 .09578  
 .00016

.16221  
 .16758  
 .16025  
 .14736  
 .00024  
 .00412  
 .01197  
 .01342  
 .00842  
 .01518  
 .02400  
 .00129  
 .00005

.00412  
 .01197  
 .01342  
 .00842  
 .01518  
 .02400  
 .00129  
 .00005

.00412  
 .01197  
 .01342  
 .00842  
 .01518  
 .02400  
 .00129  
 .00005

.00412  
 .01197  
 .01342  
 .00842  
 .01518  
 .02400  
 .00129  
 .00005

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA .10242  
 CN .03265  
 CLM .00380  
 CY .13109  
 CYN -.00639  
 CBL .00072  
 CAF .04704  
 CNF .01266  
 CLMF .02930  
 .10570  
 .10942  
 .10889  
 .10251  
 .00027

.02518  
 .02062  
 .02401  
 .03814  
 -.00015  
 .00380  
 .01032  
 .01240  
 .00772  
 .00122  
 -.00032  
 -.00639  
 -.00367  
 .00840  
 .01480  
 .02388  
 .00139

.00380  
 .01032  
 .01240  
 .00772  
 .00122  
 -.00032  
 -.00639  
 -.00367  
 .00840  
 .01480  
 .02388  
 .00139

.00380  
 .01032  
 .01240  
 .00772  
 .00122  
 -.00032  
 -.00639  
 -.00367  
 .00840  
 .01480  
 .02388  
 .00139

.00380  
 .01032  
 .01240  
 .00772  
 .00122  
 -.00032  
 -.00639  
 -.00367  
 .00840  
 .01480  
 .02388  
 .00139

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA .09704  
 CN .22122  
 CLM .00442  
 CY .13176  
 CYN -.00759  
 CBL .00519  
 CAF .04135  
 CNF .20082  
 CLMF .03026  
 .09927  
 .10019  
 .10116  
 .09523  
 .00024

.22098  
 .21552  
 .22418  
 .23366  
 .00040  
 .00442  
 .00771  
 .00990  
 .00417  
 -.00055  
 -.00044  
 -.00759  
 .00295  
 .00778  
 .01432  
 .02325  
 .00142

.00442  
 .00771  
 .00990  
 .00417  
 -.00055  
 -.00044  
 -.00759  
 .00295  
 .00778  
 .01432  
 .02325  
 .00142

.00442  
 .00771  
 .00990  
 .00417  
 -.00055  
 -.00044  
 -.00759  
 .00295  
 .00778  
 .01432  
 .02325  
 .00142

.00442  
 .00771  
 .00990  
 .00417  
 -.00055  
 -.00044  
 -.00759  
 .00295  
 .00778  
 .01432  
 .02325  
 .00142

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA .07781  
 CN .42648  
 CLM .00165  
 CY .13903  
 CYN -.00878  
 CBL .01116  
 CAF .02164  
 CNF .40596  
 CLMF .02700  
 .07806  
 .07872  
 .07899  
 .07437  
 .00012

.42542  
 .41782  
 .42248  
 .42895  
 -.00037  
 .00165  
 .00305  
 .00526  
 .00150  
 -.00471  
 -.00019  
 -.00878  
 .00282  
 .00742  
 .01354  
 .02253  
 .00134

.00165  
 .00305  
 .00526  
 .00150  
 -.00471  
 -.00019  
 -.00878  
 .00282  
 .00742  
 .01354  
 .02253  
 .00134

.00165  
 .00305  
 .00526  
 .00150  
 -.00471  
 -.00019  
 -.00878  
 .00282  
 .00742  
 .01354  
 .02253  
 .00134

.00165  
 .00305  
 .00526  
 .00150  
 -.00471  
 -.00019  
 -.00878  
 .00282  
 .00742  
 .01354  
 .02253  
 .00134

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 370

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8051) ( 10 FEB 76 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 SPEF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CA

.04928

.05156

.05150

.05349

.04569

.00020

CN

.64228

.63902

.63075

.63909

.64733

.00001

CLM

-.00507

-.00032

.00421

-.00205

-.01038

-.00022

CY

.12037

.04934

-.01585

-.08220

-.15661

-.01644

CYN

-.00761

.00381

.00756

.01302

.03178

.00115

CBL

.01714

.00401

-.00511

-.01530

-.02625

-.00241

CAF

-.00495

-.00208

-.00036

-.00168

-.00837

.00005

CNF

.62237

.61918

.61141

.61854

.62704

-.00008

CLMF

.01970

.02444

.02840

.02324

.01473

-.00015

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 SPEF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA

.18500

.18777

.18674

.00322

CN

-.20971

-.21478

-.21130

-.00020

CLM

.06490

.06969

.06692

.00025

CY

.06874

-.01169

-.09092

-.01996

CYN

.00240

.00872

.01479

.00155

CBL

-.01162

-.01590

-.01983

-.00103

CAF

.12142

.12329

.12332

.00024

CNF

-.23311

-.23856

-.23466

-.00019

CLMF

.09452

.09960

.09668

.00027

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA

.18198

.18495

.18582

.00048

CN

.00295

.00073

.00457

.00020

CLM

.02244

.02552

.02312

.00008

CY

.06232

-.01136

-.08373

-.01826

CYN

.00425

.00948

.01440

.00127

CBL

-.00963

-.01479

-.01952

-.00124

CAF

.11827

.12079

.12211

.00048

CNF

-.02056

-.02301

-.01901

.00019

CLMF

.05220

.05560

.05331

.00014

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.6000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.17538	.21346	-.01527	.05659	.00846	-.00778	.11392	.19049	.01427
-4.000	.17520	.21191	-.01278	-.01089	.00997	-.01421	.11664	.18958	.01617
.000	.17729	.21328	-.01654	-.07675	.01279	-.02073	.11667	.19637	.01309
4.000	.00024	.00073	-.00016	-.01667	.00079	-.00162	.00034	.00074	-.00015
GRADIENT									

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.16963	.41442	-.04339	.05225	.00834	-.00690	.10493	.39078	-.01275
-4.000	.16840	.41895	-.04261	-.00976	.00953	-.01362	.10715	.35578	-.01273
.000	.16916	.42312	-.04421	-.07037	.01054	-.02019	.10759	.39979	-.01405
4.000	.00007	.00109	-.00010	-.01529	.00027	-.00166	.00033	.00113	-.00016
GRADIENT									

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.16241	.61932	-.07013	.05993	.00700	-.00779	.09702	.59531	-.03923
-4.000	.16200	.62336	-.07062	-.00531	.00841	-.01366	.09953	.59284	-.04008
.000	.16501	.62399	-.06967	-.07262	.01070	-.01859	.10052	.59352	-.03816
4.000	.00033	.00058	.00006	-.01644	.00046	-.00135	.00044	.00053	.00013
GRADIENT									

RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.15828	.81956	-.06841	.05465	.01189	-.00592	.07894	.79426	-.05501
-4.000	.16033	.82774	-.09198	-.00694	.00914	-.01278	.06961	.80150	-.05678
.000	.16170	.82122	-.08776	-.06966	.00721	-.01922	.09170	.79518	-.05454
4.000	.00043	.00021	.00008	-.01554	-.00058	-.00166	.00035	.00011	.00018
GRADIENT									



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 373

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE8054) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.9000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = -10.000 SPD8RK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.100

## PARAMETRIC DATA

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .18120  
 .18193  
 .18280  
 .00020

CN .29993  
 .30339  
 .29325  
 .00096

CLM .10647  
 .10606  
 .10005  
 -.00080

CY .07051  
 -.00964  
 -.08736  
 -.01973

CYN -.00055  
 .00834  
 .01574  
 .00204

CBL -.02077  
 -.02305  
 -.02394  
 -.00040

CAF .10.85  
 .10543  
 .10502  
 .00025

CNF -.32847  
 -.33187  
 -.32098  
 .00094

CLMF .14255  
 .14221  
 .13676  
 -.00072

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .17986  
 .18007  
 .18117  
 .00016

CN -.02462  
 .03675  
 .01734  
 .00091

CLM .05120  
 .05490  
 .04530  
 -.00065

CY .06325  
 -.00874  
 -.08134  
 -.01807

CYN .00087  
 .00798  
 .01545  
 .00182

CBL -.01322  
 -.02168  
 -.02896  
 -.00197

CAF .10478  
 .10512  
 .10666  
 .00023

CNF -.05230  
 -.05642  
 -.04517  
 .00089

CLMF .08659  
 .09012  
 .08170  
 -.00061

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .18137  
 .18149  
 .18138  
 .00000

CN .23585  
 .23542  
 .24643  
 .00132

CLM .00367  
 .00302  
 -.00319  
 -.00086

CY .05964  
 -.00776  
 -.07579  
 -.01693

CYN .00189  
 .00802  
 .01442  
 .00157

CBL -.01234  
 -.02085  
 -.02845  
 -.00201

CAF .10459  
 .10572  
 .10586  
 .00016

CNF .20775  
 .20834  
 .21785  
 .00126

CLMF .03999  
 .03923  
 .03391  
 -.00076

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .17928  
 .17712  
 .17899  
 -.00004

CN .46491  
 .46921  
 .47361  
 .00109

CLM -.02583  
 -.03094  
 -.03321  
 -.00092

CY .06080  
 -.00659  
 -.07551  
 -.01704

CYN .00070  
 .00769  
 .01503  
 .00180

CBL -.01218  
 -.02028  
 -.02732  
 -.00189

CAF .09815  
 .09854  
 .09849  
 .00004

CNF .43518  
 .43873  
 .44337  
 .00102

CLMF .01240  
 .00719  
 .00587  
 -.00082

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .17366  
 .17128  
 .17330  
 -.00004

CN .69210  
 .69795  
 .69850  
 .00180

CLM -.04358  
 -.04664  
 -.04773  
 -.00003

CY .05339  
 -.01454  
 -.08143  
 -.01695

CYN .00436  
 .01093  
 .01694  
 .00157

CBL -.00740  
 -.01781  
 -.02762  
 -.00253

CAF .08900  
 .09115  
 .09045  
 .00018

CNF .65091  
 .65793  
 .65702  
 .00075

CLMF .00357  
 -.00000  
 -.00023  
 -.00045

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 374

0A148 -140 A/B/C/R CAVITY P.L. BASE P. ADJUSTED

(KEEDES ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 935.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPOILER = 55.000  
 BDPLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .900

## PARAMETRIC DATA

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .10604  
 CN -.27471  
 CLM .05013  
 CY .07788  
 CYN -.00109  
 CBL -.02416  
 CAF .04739  
 CNF -.029642  
 CLMF .07791  
 CLMF .05111  
 CLMF .07265  
 CLMF -.00056

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA .10678  
 CN -.03391  
 CLM .03308  
 CY .07690  
 CYN -.00232  
 CBL -.01288  
 CAF .05114  
 CNF -.05458  
 CLMF .05028  
 CLMF .05246  
 CLMF .05293  
 CLMF -.00053

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA .10730  
 CN .00170  
 CLM .01355  
 CY .07878  
 CYN -.00302  
 CBL -.01600  
 CAF .04920  
 CNF .17999  
 CLMF .04091  
 CLMF .04309  
 CLMF .03739  
 CLMF -.00044

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA .10491  
 CN .01352  
 CLM .00167  
 CY .07147  
 CYN .00102  
 CBL -.01267  
 CAF .04299  
 CNF .03702  
 CLMF .02798  
 CLMF .03024  
 CLMF .04891  
 CLMF -.00013

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA .10420  
 CN .00639  
 CLM .00040  
 CY .07255  
 CYN .00024  
 CBL -.00977  
 CAF .04723  
 CNF .03608  
 CLMF .02907  
 CLMF .03029  
 CLMF .03029  
 CLMF -.00043







DATE 13 MAY 76

TABULATED FORCE DATA - CA148 (AMES 11-073-1)

PAGE 377

CA148 -140 A/B/C/R CAVITY P.L. BASE P.L. ADJUSTED

WRESDST 10 FEB 76

## REFERENCE DATA

XMRP = 2890.0000 SQ.FT.  
 YMRP = 474.8000 IN.  
 ZMRP = 935.6000 IN.  
 SCALE = .0300

RUDDER = 10.000  
 BDFLAP = 15.300  
 ELN-L = 4.000  
 ELN-R = 1.400

## PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA	CN	CLM	CY	CYN	CSL	CAF	CVF	CLVF
BETA	.17711	.21258	-.01504	.07746	-.01183	.01723	.11302	.13893	.01633
GRADIENT	.17591	.21227	-.01118	.01241	-.00835	.01071	.11261	.13142	.01633
	.17621	.21224	-.01502	-.05222	-.00579	.00446	.11261	.13142	.01633
	-.00011	-.00029	.00000	-.01621	.00076	-.00160	-.00002	-.00009	.00000

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 5.000	CA	CN	CLM	CY	CYN	CSL	CAF	CVF	CLVF
BETA	.17010	.21533	-.04419	.07100	-.00393	.01729	.10334	.13900	.01633
GRADIENT	.17007	.21514	-.04344	.01311	-.00634	.01152	.10429	.13871	.01633
	.15972	.21675	-.04435	-.04596	-.00782	.00444	.10323	.13871	.01633
	-.00005	.00010	-.00002	-.01462	.00025	-.00161	-.00008	.00006	.00006

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA	CN	CLM	CY	CYN	CSL	CAF	CVF	CLVF
BETA	.16550	.21193	-.06565	.07697	-.01076	.01784	.09979	.13900	.01633
GRADIENT	.15576	.21224	-.06824	.01055	-.00621	.01239	.09740	.13900	.01633
	.16430	.21320	-.06874	-.05694	-.00512	.00690	.09985	.13900	.01633
	-.00027	.00016	-.00039	-.01673	.00070	-.00137	-.00024	.00001	.00006

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CA	CN	CLM	CY	CYN	CSL	CAF	CVF	CLVF
BETA	.16137	.21127	-.09304	.07123	-.00570	.02009	.09155	.13900	.01633
GRADIENT	.15243	.21939	-.09325	.01016	-.00780	.01315	.09149	.13900	.01633
	.16167	.21279	-.09509	-.05099	-.00332	.00608	.09152	.13900	.01633
	.00004	.00019	-.00003	-.01528	-.00051	-.00175	-.00017	.00006	.00006

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 378

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE9059) ( 12 FEB 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6500 IN. XO RUDDER = 10.000 SPDRK = 55.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = 4.000  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO ELVN-R = -4.000 MACH = 1.250  
 SCALE = .0300

RM/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA  
 .18509  
 .24368  
 .26115  
 .25500  
 .18322  
 .00010  
 CLM  
 .08977  
 .09590  
 .01339  
 .00020  
 .01931  
 .00020  
 CY  
 .08670  
 .00931  
 -.06779  
 -.01931  
 CYN  
 -.01528  
 .01333  
 -.00131  
 .00175  
 CBL  
 .01799  
 .01333  
 .00663  
 -.00117  
 CLMF  
 .12178  
 .12738  
 .12371  
 .00124

RM/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -.000  
 .000  
 .000  
 .000  
 GRADIENT

CA  
 .18535  
 .24368  
 .26115  
 .25500  
 .18322  
 .00001  
 CLM  
 .08977  
 .09590  
 .01339  
 .00020  
 .01931  
 .00020  
 CY  
 .08670  
 .00931  
 -.06779  
 -.01931  
 CYN  
 -.01528  
 .01333  
 -.00131  
 .00175  
 CBL  
 .01799  
 .01333  
 .00663  
 -.00117  
 CLMF  
 .12178  
 .12738  
 .12371  
 .00124

RM/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -.000  
 .000  
 .000  
 .000  
 GRADIENT

CA  
 .18199  
 .24368  
 .26115  
 .25500  
 .18322  
 .00020  
 CLM  
 .08977  
 .09590  
 .01339  
 .00020  
 .01931  
 .00020  
 CY  
 .08670  
 .00931  
 -.06779  
 -.01931  
 CYN  
 -.01528  
 .01333  
 -.00131  
 .00175  
 CBL  
 .01799  
 .01333  
 .00663  
 -.00117  
 CLMF  
 .12178  
 .12738  
 .12371  
 .00124

RM/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -.000  
 .000  
 .000  
 .000  
 GRADIENT

CA  
 .17791  
 .24368  
 .26115  
 .25500  
 .18322  
 .00003  
 CLM  
 .08977  
 .09590  
 .01339  
 .00020  
 .01931  
 .00020  
 CY  
 .08670  
 .00931  
 -.06779  
 -.01931  
 CYN  
 -.01528  
 .01333  
 -.00131  
 .00175  
 CBL  
 .01799  
 .01333  
 .00663  
 -.00117  
 CLMF  
 .12178  
 .12738  
 .12371  
 .00124

RM/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -.000  
 .000  
 .000  
 .000  
 GRADIENT

CA  
 .17215  
 .24368  
 .26115  
 .25500  
 .18322  
 .00004  
 CLM  
 .08977  
 .09590  
 .01339  
 .00020  
 .01931  
 .00020  
 CY  
 .08670  
 .00931  
 -.06779  
 -.01931  
 CYN  
 -.01528  
 .01333  
 -.00131  
 .00175  
 CBL  
 .01799  
 .01333  
 .00663  
 -.00117  
 CLMF  
 .12178  
 .12738  
 .12371  
 .00124



DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 380

( KE8060 ) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = .900

RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .10594  
 CN -.26120  
 CLM .04420  
 CY .09673  
 CYN -.02082  
 CBL .01732  
 CAF .04811  
 CNF -.28244  
 CLMF .07156  
 .10890  
 .10431  
 -.00020  
 .05139  
 .04699  
 .00035  
 .00948  
 -.07743  
 -.02177  
 -.01022  
 .00025  
 -.00011  
 .05099  
 .04708  
 -.23996  
 -.00219  
 .07828  
 .07445  
 .00036

RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .10963  
 CN -.02642  
 CLM .02976  
 CY .09275  
 CYN -.02009  
 CBL .01973  
 CAF .05152  
 CNF -.04781  
 CLMF .05708  
 .10244  
 .10825  
 -.00017  
 .03455  
 .03033  
 .00007  
 .00847  
 -.07501  
 -.02097  
 -.00931  
 .00167  
 -.00105  
 .05310  
 .05046  
 -.00013  
 .06133  
 .05748  
 .00005

RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .10666  
 CN .13510  
 CLM .01854  
 CY .09249  
 CYN -.01944  
 CBL .01923  
 CAF .04973  
 CNF .17490  
 CLMF .04540  
 .10767  
 .10549  
 -.00015  
 .02095  
 .01469  
 -.00048  
 .01096  
 -.07197  
 .00269  
 -.00134  
 .05273  
 .16998  
 .04845  
 -.00002  
 .06133  
 .05748  
 .00005

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .10450  
 CN .140371  
 CLM .00512  
 CY .08509  
 CYN -.01662  
 CBL .02195  
 CAF .04859  
 CNF .39303  
 CLMF .03209  
 .10435  
 .10458  
 .00002  
 .00735  
 .00337  
 -.00034  
 .01000  
 -.06703  
 .00086  
 -.00191  
 .05137  
 .38736  
 .04955  
 .00012  
 .03300  
 .02952  
 -.00031

RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .10421  
 CN .09870  
 CLM -.00193  
 CY .08410  
 CYN -.01463  
 CBL .02730  
 CAF .04663  
 CNF .57732  
 CLMF .02465  
 .10335  
 .10258  
 .00017  
 .00310  
 -.00017  
 .00559  
 -.07076  
 .00169  
 -.00244  
 .057541  
 .56731  
 .00007  
 .03300  
 .02952  
 -.00031

REFERENCE DATA

SREF = 2590.0000 SQ. FT. XMRP = 1076.6800 IN. XO RUDDER = 10.000 SPDBRK = 55.000

LREF = 474.8300 IN. YMRP = .0000 IN. YO BOFLAP = 16.300 ELVN-L = 4.000

BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = -4.000 MACH = .600

SCALE = .3300

ALPHA = -4.000	RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00														
BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF						
-8.000	.08027	-.19449	.01588	.15878	-.02416	.01939	.02786	-.21343	.03950						
-4.000	.08470	-.20527	.02118	.08471	-.01699	.01747	.03328	-.22425	.04432						
.000	.08597	-.21398	.02453	.01096	-.01058	.01641	.03538	-.23279	.04835						
4.000	.08400	-.20964	.02092	-.06226	-.00494	.01639	.03391	-.22807	.04413						
8.000	.07755	-.15672	.01422	-.14378	.00508	.01380	.02780	-.21522	.03764						
GRADIENT	-.00009	-.00055	-.00003	-.01837	.00151	-.00014	.00008	-.00048	-.00010						
	RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00														
BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF						
-8.000	.08746	-.00573	.01313	.15446	-.02392	.02400	.03435	-.02497	.03718						
-4.000	.09122	-.01653	.01884	.08103	-.01608	.01974	.03952	-.03540	.04237						
.000	.09276	-.02501	.02317	.00921	-.00968	.01631	.04251	-.04351	.04659						
4.000	.09134	-.02250	.01956	-.06299	-.00386	.01388	.04070	-.04124	.04330						
8.000	.08509	-.01074	.01344	-.14249	.00660	.00897	.03406	-.02967	.03742						
GRADIENT	.00002	-.00075	.00013	-.01800	.00153	-.00073	.00015	-.00073	.00012						
	RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00														
ALPHA = 4.000	RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00														
BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF						
-8.000	.08016	.17927	.01332	.14897	-.02321	.02895	.02613	.15964	.03754						
-4.000	.08293	.17522	.01769	.07822	-.01519	.02212	.03100	.15613	.04181						
.000	.08411	.16590	.02284	.00710	-.00858	.01691	.03417	.14718	.04635						
4.000	.08428	.17120	.01833	-.06325	-.00264	.01230	.03258	.15224	.04225						
8.000	.07831	.17842	.01253	-.14391	.00843	.00461	.02695	.15019	.03636						
GRADIENT	.00018	-.00050	.00008	-.01769	.00157	-.00123	.00020	-.00049	.00006						
	RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00														
ALPHA = 8.000	RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00														
BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF						
-8.000	.05998	.37798	.01056	.14293	-.02233	.03391	.00480	.35791	.03523						
-4.000	.06034	.37645	.01442	.07389	-.01410	.02450	.01048	.35564	.03797						
.000	.05569	.35883	.02014	.00605	-.00758	.01711	.01293	.35105	.04278						
4.000	.06223	.37294	.01453	-.06094	-.00180	.01040	.01153	.35428	.03813						
8.000	.05680	.37876	.00854	-.14001	.00905	-.00007	.00542	.35964	.03298						
GRADIENT	.00024	-.00019	.00001	-.01685	.00154	-.00176	.00013	-.00017	.00002						

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8061) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = .600

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-8.000

-4.000

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## PARAMETRIC DATA

CA .03081  
 CN .59344  
 CLM .00770  
 CY .13580  
 CYN -.02156  
 CBL .04062  
 CAF -.02307  
 CNF .57385  
 CLMF .03143

CMF .57385  
 CNF .56826  
 CLMF .03706  
 CNF .55945  
 CLMF .04220  
 CNF .56882  
 CLMF .03443  
 CNF .57898  
 CLMF .02513  
 CNF .03007  
 CLMF -.00033

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-8.000

-4.000

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## PARAMETRIC DATA

CA .18632  
 CN -.24119  
 CLM .08573  
 CY .09095  
 CYN -.01242  
 CBL .00580  
 CAF .12159  
 CNF -.26505  
 CLMF .11604

CMF .12150  
 CNF -.27170  
 CLMF .12150  
 CNF -.26791  
 CLMF .11755  
 CNF -.00036  
 CLMF .00024

CA .18370  
 CN -.02453  
 CLM .04097  
 CY .03434  
 CYN -.01099  
 CBL .00698  
 CAF .11802  
 CNF -.04860  
 CLMF .07163

CMF .07537  
 CNF -.05359  
 CLMF .11938  
 CNF -.04685  
 CLMF .07272  
 CNF -.00003  
 CLMF .00012

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE8062) ( 10 FEB 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO RUDDER = 5.000 SPOBRK = 55.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = -4.000  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO ELVN-R = -4.000 MACH = 1.400  
 SCALE = .0300

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.17664	.18710	.00339	.07757	-.00868	.00833	.11145	.16317	.03378
-4.000	.17696	.18227	.00335	.01221	-.00516	.00171	.11271	.15839	.03674
.000	.17609	.19023	.00304	-.05495	-.00155	-.00491	.11220	.16631	.03371
GRADIENT	-.00007	.00039	-.00004	-.01656	.00089	-.00165	.00009	.00039	-.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.16944	.39009	-.02449	.07177	-.00635	.00820	.10238	.36550	.00597
-4.000	.16836	.38957	-.02287	.01312	-.00487	.00170	.10352	.36551	.00783
.000	.16849	.39516	-.02587	-.04897	-.00348	-.00524	.10299	.37077	.00542
GRADIENT	-.00012	.00063	-.00017	-.01508	.00036	-.00158	.00008	.00066	-.00018

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.16198	.59061	-.04920	.07838	-.00745	.00783	.09557	.56607	-.01776
-4.000	.16122	.59414	-.05053	.01396	-.00512	.00197	.09567	.56988	-.01960
.000	.16274	.59654	-.05155	-.05456	-.00222	-.00344	.09360	.57090	-.01933
GRADIENT	.00009	.00075	-.00031	-.01662	.00065	-.00141	-.00025	.00060	-.00016

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.15659	.79338	-.06669	.07343	-.00214	.00956	.08717	.76799	-.03402
-4.000	.15758	.79887	-.07124	.01344	-.00460	.00232	.08615	.77233	-.03746
.000	.15789	.79473	-.07009	-.05026	-.00632	-.00427	.08663	.76816	-.03513
GRADIENT	.00016	.00017	-.00043	-.01546	-.00052	-.00173	-.00007	.00002	-.00026

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

(KE8063) ( 10 FEB 76 )

## REFERENCE DATA

REF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 5.000  
 BDFLAP = 16.300  
 ELVN-R = -4.000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.16902	-.23978	.11745	.09193	-.01430	.00544	.11534	-.31611	.15072
	.19221	-.29728	.12391	.01188	-.00638	.00031	.11836	-.32366	.15566
	.18796	-.29161	.11933	-.06718	.00102	-.00419	.11868	-.31716	.15203
GRADIENT	-.00001	-.00023	.00023	-.01993	.00192	-.00120	.00042	-.00013	.00016

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.19791	-.30097	.06057	.06606	-.01285	.00780	.11493	-.06775	.09441
	.16909	-.24000	.08375	.01261	-.00620	.00128	.11706	-.06930	.09723
	.16397	-.24344	.08065	-.06152	.00030	-.00450	.11791	-.06564	.09418
GRADIENT	.00006	.00019	.00001	-.01846	.00164	-.00159	.00037	.00026	-.00003

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.19223	-.14574	.01356	.07954	-.01087	.00916	.11010	.15913	.04772
	.18441	.12664	.01570	.01291	-.00573	.00164	.11244	.16596	.04971
	.16363	.14926	.01256	-.05501	-.00099	-.00547	.11274	.17275	.04665
GRADIENT	.00005	.00044	-.00016	-.01682	.00124	-.00183	.00033	.00045	-.00013

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.17094	.14185	-.01491	.07688	-.01004	.00959	.10147	.33425	.02007
	.17674	.14507	-.01661	.04477	-.00578	.00174	.10233	.38753	.01859
	.17560	.13071	-.01907	-.01493	-.00184	-.00529	.10254	.39277	.01684
GRADIENT	.00007	.00111	-.00052	-.01505	.00103	-.00186	.00013	.00107	-.00040

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.16807	.16283	-.01720	.07538	-.00954	.01224	.09304	.60089	-.01237
	.16936	.16355	-.01745	.01124	-.00462	.00379	.09372	.61081	-.01516
	.16829	.16440	-.01695	-.05411	-.00137	-.00551	.09235	.60560	-.01338
GRADIENT	.00010	.00070	-.00003	-.01519	.00060	-.00222	-.00009	.00059	-.00025





DATE 08 MAY 76

(KE8065) ( 10 FEB 76 )

0A148 -140 A/B/C/R CAVITY P.. BASE P.. ADJUSTED

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.5800 IN. XO  
 LREF = 474.8000 IN. YMRP = 0000 IN. YC  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = 5.000 SPDRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA = -4.000	-33351	.08366	.10780	-.01966	-.00029	.05143	-.35526	.11711
SCALE = .0300	-.34398	.09647	.01887	-.00862	-.00020	.05262	-.36741	.12377
GRADIENT	-.33540	.06557	-.06746	.00160	-.00029	.05045	-.35510	.11312
	-.00024	-.00039	-.02191	.00266	-.00000	-.00012	-.00011	-.00050

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA = -4.000	-.05774	.06794	.10310	-.01907	-.00419	.05513	-.10951	.09547
SCALE = .0300	-.03471	.07233	.01837	-.00809	.00036	.05525	-.11591	.09892
GRADIENT	-.03719	.06524	-.06637	.02262	-.00297	.05370	-.10757	.09127
	.00007	-.00034	-.02118	.00271	-.00080	-.00018	.00023	-.00053

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA = -4.000	-.14560	.04681	.10079	-.01804	-.00689	.05114	-.12362	.07634
SCALE = .0300	.13676	.05329	.01910	-.00768	.00076	.05428	.11829	.07921
GRADIENT	.14576	.04653	-.06492	.00276	-.00476	.05225	.12530	.07413
	.00002	-.00002	-.02071	.00260	-.00146	.00014	.00028	-.00028

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 0.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA = -4.000	.15602	.03551	.09341	-.01532	-.00923	.04981	-.33498	.06285
SCALE = .0300	.13046	.03788	.01651	-.00557	.00188	.05190	.34034	.06331
GRADIENT	.16032	.03517	-.00550	.00127	-.00575	.05157	.34149	.05956
	.00061	-.00017	-.01913	.00207	-.00187	.00022	.00081	-.00036

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 0.000	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA = -4.000	.10412	.03120	.09204	-.01307	-.01293	.04781	-.52529	.05709
SCALE = .0300	.10290	.03692	.01444	-.00710	.00359	.05071	.52706	.05134
GRADIENT	.10177	.03434	-.06247	-.00124	-.00617	.05269	.52275	.05734
	-.00059	.00027	-.01931	.00148	-.00239	.00061	-.00032	.00003

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8066) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.07926	-.26240	.05079	.16550	-.02184	.03245	.02438	-.28213	.07553
-4.000	.08341	-.27528	.05595	.08957	-.01349	.00028	.03002	-.23453	.08008
.000	.08619	-.28155	.05936	.01609	-.00727	-.00034	.03381	-.33052	.08317
4.000	.08280	-.27646	.05531	-.05640	-.00161	.00037	.03242	-.29482	.07921
8.000	.07745	-.26450	.05167	-.13655	.00772	-.00147	.02896	-.28256	.07455
GRADIENT	-.00008	-.00015	-.00001	-.01826	.00149	.00001	.00030	-.00034	-.00011

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.08733	-.07527	.04736	.16212	-.02175	.00766	.03237	-.09547	.07226
-4.000	.09352	-.08277	.05280	.08973	-.01327	.00319	.03779	-.10193	.07672
.000	.09271	-.09187	.05759	.01609	-.00674	.00028	.04192	-.11053	.08119
4.000	.09073	-.08306	.05398	-.05504	-.00126	.00167	.03947	-.10678	.07779
8.000	.08550	-.07467	.04828	-.13466	.00816	-.00593	.03536	-.09339	.07252
GRADIENT	.00001	-.00056	.00015	-.01797	.00150	-.00061	.00021	-.00051	.00013

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.08004	.10872	.04739	.16030	-.02183	.01186	.02552	-.08824	.07273
-4.000	.09335	.10704	.05099	.08886	-.01307	.00510	.02922	-.08727	.07551
.000	.08439	.09579	.05619	.01667	-.00654	-.00000	.03352	-.07716	.08169
4.000	.08352	.10345	.05310	-.05376	-.00106	.00416	.03312	-.08466	.07937
8.000	.07803	.11595	.04745	-.13407	.00895	-.01090	.02928	-.09744	.07139
GRADIENT	.00002	-.00045	.00026	-.01783	.00150	-.00116	.00045	-.00033	.00017

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.05338	.30689	.04427	.15601	-.02206	.01688	.00446	-.28542	.06939
-4.000	.05140	.30355	.04853	.08712	-.01278	.00592	.00853	-.28403	.07216
.000	.06149	.29563	.05591	.01782	-.00623	-.00044	.01306	-.27887	.07234
4.000	.05121	.30540	.05002	-.05103	-.00065	-.00645	.01314	-.28741	.07255
8.000	.05678	.31355	.04508	-.13005	.00936	-.01612	.00851	-.29527	.06932
GRADIENT	-.00002	.00023	.00019	-.01727	.00152	-.00167	.00058	-.00342	.00001

## PARAMETRIC DATA

RUDDER = 5.000 SPDRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED (KE8066) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = 12.000

BETA

CA .03156  
 CN .52448  
 CLM .03902  
 CY .14842  
 CYN -.02093  
 CBL .02297  
 CAF -.02285  
 CNF .50422  
 CLMF .06367

GRADIENT  
 B .000  
 GRADIENT

CA .03255  
 CN .51487  
 CLM .04800  
 CY .07876  
 CYN -.01074  
 CBL .01084  
 CAF -.01966  
 CNF .49589  
 CLMF .07122

CA .03399  
 CN .50757  
 CLM .05407  
 CY .01446  
 CYN -.00507  
 CBL -.00001  
 CAF -.01397  
 CNF .49995  
 CLMF .07606

CA .03204  
 CN .51798  
 CLM .04699  
 CY -.04909  
 CYN -.00073  
 CBL -.01055  
 CAF -.01309  
 CNF .50058  
 CLMF .06938

CA .02878  
 CN .53469  
 CLM .03828  
 CY -.12559  
 CYN .00920  
 CBL -.02195  
 CAF -.01695  
 CNF .51693  
 CLMF .06127

CA .00006  
 CN .00009  
 CLM -.00013  
 CY -.01598  
 CYN .00125  
 CBL -.00267  
 CAF .00082  
 CNF .00059  
 CLMF -.00023

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = -4.000

BETA

CA .11265  
 CN -.31607  
 CLM .07221  
 CY .09321  
 CYN -.01232  
 CBL -.00284  
 CAF .04835  
 CNF -.33834  
 CLMF .10084

GRADIENT  
 B .000  
 GRADIENT

CA .11434  
 CN -.32701  
 CLM .07778  
 CY .00456  
 CYN -.00123  
 CBL -.00291  
 CAF .04997  
 CNF -.34931  
 CLMF .10666

CA .11182  
 CN -.31320  
 CLM .07138  
 CY -.08409  
 CYN .00957  
 CBL -.00278  
 CAF .04777  
 CNF -.34155  
 CLMF .10050

CA .00010  
 CN -.00039  
 CLM -.00010  
 CY -.02216  
 CYN .00274  
 CBL .00001  
 CAF -.00007  
 CNF -.00040  
 CLMF -.00004

ALPHA = .000

BETA

CA .11628  
 CN -.07077  
 CLM .05040  
 CY .00354  
 CYN -.01225  
 CBL .00119  
 CAF .05141  
 CNF -.09324  
 CLMF .07945

GRADIENT  
 B .000  
 GRADIENT

CA .11627  
 CN -.07716  
 CLM .05503  
 CY .00135  
 CYN -.00119  
 CBL -.00263  
 CAF .05364  
 CNF -.09879  
 CLMF .08327

CA .11628  
 CN .05389  
 CLM .04971  
 CY -.00195  
 CYN .00999  
 CBL -.00605  
 CAF .05436  
 CNF -.09163  
 CLMF .07790

CA .00003  
 CN .00011  
 CLM -.00009  
 CY -.02144  
 CYN .00278  
 CBL -.00090  
 CAF .00037  
 CNF .00020  
 CLMF -.00019

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

(KE8067) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

CA .11265  
 CN -.31607  
 CLM .07221  
 CY .09321  
 CYN -.01232  
 CBL -.00284  
 CAF .04835  
 CNF -.33834  
 CLMF .10084

GRADIENT  
 B .000  
 GRADIENT

CA .11434  
 CN -.32701  
 CLM .07778  
 CY .00456  
 CYN -.00123  
 CBL -.00291  
 CAF .04997  
 CNF -.34931  
 CLMF .10666

CA .11182  
 CN -.31320  
 CLM .07138  
 CY -.08409  
 CYN .00957  
 CBL -.00278  
 CAF .04777  
 CNF -.34155  
 CLMF .10050

CA .00010  
 CN -.00039  
 CLM -.00010  
 CY -.02216  
 CYN .00274  
 CBL .00001  
 CAF -.00007  
 CNF -.00040  
 CLMF -.00004

ALPHA = .000

BETA

CA .11628  
 CN -.07077  
 CLM .05040  
 CY .00354  
 CYN -.01225  
 CBL .00119  
 CAF .05141  
 CNF -.09324  
 CLMF .07945

GRADIENT  
 B .000  
 GRADIENT

CA .11627  
 CN -.07716  
 CLM .05503  
 CY .00135  
 CYN -.00119  
 CBL -.00263  
 CAF .05364  
 CNF -.09879  
 CLMF .08327

CA .11628  
 CN .05389  
 CLM .04971  
 CY -.00195  
 CYN .00999  
 CBL -.00605  
 CAF .05436  
 CNF -.09163  
 CLMF .07790

CA .00003  
 CN .00011  
 CLM -.00009  
 CY -.02144  
 CYN .00278  
 CBL -.00090  
 CAF .00037  
 CNF .00020  
 CLMF -.00019

REFERENCE DATA

QREF = 2000.0000 SQ.FT. AMBP = 1075.0000 IN. X0  
 QREF = 74.0000 IN. AMBP = 1000.0000 IN. Y0  
 QREF = 935.0000 IN. AMBP = 375.0000 IN. Z0  
 SCALE = .0300

RUDDER = .000 SPCBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

PN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.11345	.16369	.03031	.08925	-.01183	.00371	.04985	.14158	.05567
-4.000	.11457	.15923	.03321	.00659	-.00139	-.00303	.05259	.13762	.06127
.000	.11730	.16636	.02937	-.07813	.00953	-.00648	.05233	.14572	.05708
4.000	-.00002	.00038	-.00019	-.02092	.00268	-.00152	.00031	.00052	-.00032
GRADIENT									

PN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.11189	.17611	.01689	.08308	-.00926	.00586	.04917	.35432	.04509
-4.000	.11193	.15222	.01613	.00528	-.00128	-.00136	.05080	.36066	.04390
.000	.11092	.15313	.01443	-.07473	.00745	-.00321	.05175	.36197	.04214
4.000	-.00012	.00089	-.00031	-.01972	.00209	-.00188	.00032	.00056	-.00037
GRADIENT									

PN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.11099	.157004	.01018	.08024	-.00759	.00916	.04708	.54782	.03855
-4.000	.10982	.156935	.01447	.00355	-.00170	.00026	.04821	.54820	.04179
.000	.11084	.15509	.01024	-.07515	.00492	-.00364	.05009	.54377	.03834
4.000	-.00002	-.00062	.00008	-.01942	.00156	-.00235	.00038	-.00051	-.00003
GRADIENT									

PARAMETRIC DATA

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

REVISED: 10 10 76

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1075.6500 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = .000  
 BDFLAP = 22.500  
 ELV-B = -4.000  
 SPOBET = 55.000  
 ELV-B = 1.000  
 SPOBET = 55.000

## PARAMETRIC DATA

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA  
 .03292  
 .03222  
 .03138  
 .03054  
 .02970  
 .02886  
 .02802  
 .02718

CN  
 -.24534  
 -.25776  
 -.26441  
 -.26804  
 -.27052  
 -.27199  
 -.27260  
 -.27260

CLM  
 .03592  
 .04222  
 .04535  
 .04712  
 .04852  
 .04961  
 .05039  
 .05082

CY  
 .15145  
 .07417  
 .00017  
 -.07352  
 -.15260  
 -.04461  
 -.01846  
 .00152

CYN  
 -.01546  
 -.00649  
 -.00036  
 .00569  
 .01465  
 .00152  
 .00152  
 .00152

CBL  
 -.00046  
 -.00321  
 -.00345  
 -.00301  
 -.00461  
 .00002  
 .00002  
 .00002

CAF  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348

CVF  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348

CLMF  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348

RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA  
 .03296  
 .03212  
 .03128  
 .03044  
 .02960  
 .02876  
 .02792  
 .02708

CN  
 -.24544  
 -.25786  
 -.26451  
 -.26814  
 -.27062  
 -.27209  
 -.27270  
 -.27270

CLM  
 .03419  
 .04049  
 .04362  
 .04539  
 .04679  
 .04788  
 .04866  
 .04919

CY  
 .15129  
 .07377  
 .00003  
 -.07375  
 -.15280  
 -.04481  
 -.01866  
 .00153

CYN  
 -.01618  
 -.00657  
 -.00043  
 .00571  
 .01510  
 .00153  
 .00153  
 .00153

CBL  
 -.00048  
 -.00321  
 -.00345  
 -.00301  
 -.00461  
 .00002  
 .00002  
 .00002

CAF  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348

CVF  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348

CLMF  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348  
 .02348

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA  
 .03586  
 .03444  
 .03306  
 .03173  
 .03038  
 .02904  
 .02770  
 .02636

CN  
 .12476  
 .12353  
 .12235  
 .12117  
 .11999  
 .11881  
 .11763  
 .11645

CLM  
 .03436  
 .03802  
 .04237  
 .04712  
 .05235  
 .05801  
 .06411  
 .07066

CY  
 .14934  
 .07552  
 .00352  
 -.06833  
 -.14825  
 -.01769  
 -.01155  
 .00155

CYN  
 -.01676  
 -.00658  
 -.00036  
 .00569  
 .01465  
 .00155  
 .00155  
 .00155

CBL  
 .00038  
 .00180  
 .00331  
 .00485  
 .00641  
 .00797  
 .00953  
 .01109

CAF  
 .02457  
 .02322  
 .02199  
 .02076  
 .01953  
 .01830  
 .01707  
 .01584

CVF  
 .02457  
 .02322  
 .02199  
 .02076  
 .01953  
 .01830  
 .01707  
 .01584

CLMF  
 .02457  
 .02322  
 .02199  
 .02076  
 .01953  
 .01830  
 .01707  
 .01584

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 3.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA  
 .06503  
 .06747  
 .06793  
 .06776  
 .06718  
 .06660  
 .06602  
 .06544

CN  
 .32738  
 .32587  
 .31381  
 .30218  
 .29060  
 .27902  
 .26744  
 .25586

CLM  
 .03017  
 .03478  
 .03993  
 .04566  
 .05199  
 .05881  
 .06612  
 .07394

CY  
 .14059  
 .07279  
 .00331  
 -.06519  
 -.14453  
 -.01725  
 -.01153  
 .00153

CYN  
 -.01691  
 -.00658  
 -.00054  
 .00553  
 .01532  
 .00153  
 .00153  
 .00153

CBL  
 .01464  
 .00382  
 .00333  
 .00366  
 .00388  
 .00410  
 .00432  
 .00454

CAF  
 .00379  
 .00805  
 .01239  
 .01663  
 .02087  
 .02511  
 .02935  
 .03359

CVF  
 .00379  
 .00805  
 .01239  
 .01663  
 .02087  
 .02511  
 .02935  
 .03359

CLMF  
 .00379  
 .00805  
 .01239  
 .01663  
 .02087  
 .02511  
 .02935  
 .03359

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY P., BASE P., ADJUSTED

(KE8069) ( 10 FEB 76 )

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA = 12.000  
BETA  
-8.000  
-4.000  
0.000  
4.000  
9.000  
GRADIENT

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CBL	CAF	CIF	CLMF
.03570	.54706	.02318	.13798	-.01606	-.02004	-.02459	.52600	.04949
.03953	.53779	.03194	.06538	-.00481	-.00738	-.02089	.51777	.05711
.04624	.52531	.03740	.00773	.00024	-.00304	-.01487	.50634	.05189
.03777	.53349	.02952	-.06194	.00495	-.01344	-.01401	.51473	.05390
.03496	.54840	.02229	-.13910	.01473	-.02504	-.01851	.52903	.04757
-.00003	-.00054	-.00030	-.01532	.00122	-.00260	.00085	-.00038	-.00041

RUDDER = .000  
BDFLAP = 22.500  
ELVN-R = -4.000  
MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA = -4.000  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CA	CN	CLM	CY	CYN	CBL	CAF	CIF	CLMF
.12521	-.40211	.12427	.09127	-.01187	-.00400	.06128	-.42430	.15292
.12605	-.41604	.13104	.00641	-.00205	-.00429	.06479	-.43753	.15591
.12300	-.40589	.12342	-.07854	.00737	-.00475	.06518	-.42596	.15111
-.00009	-.00047	-.00011	-.02123	.00240	-.00009	.00024	-.00033	-.00023

RUDDER = .000  
BDFLAP = 22.500  
ELVN-R = -10.000  
MACH = .900

PARAMETRIC DATA

0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

(KE8069) ( 10 FEB 76 )

RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CBL	CAF	CIF	CLMF
.12793	-.15314	.10016	.08749	-.01172	.00025	.06444	-.17537	.12901
.12778	-.16011	.10412	.00602	-.00193	-.00423	.06610	-.18182	.13214
.12557	-.15721	.09310	-.00001	.00773	-.00785	.06730	-.17711	.12822
-.00017	-.00001	-.00013	-.02051	.00244	-.00102	.00019	.00012	-.00025

RUDDER = .000  
BDFLAP = 22.500  
ELVN-R = -10.000  
MACH = .900

PARAMETRIC DATA

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(KEBCE9) ( 10 FEB 76 )

0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000  
 BDFLAP = 22.500  
 ELVN-R = -10.000  
 ELVN-L = -10.000  
 MACH = .900

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.12355	.09790	.01027	.08478	-.01080	.00355	.05927	.07555	.09921
GRADIENT	.12325	.06623	.07947	.00614	-.00181	-.00388	.08111	.03443	.10372
	.12335	.09429	.07204	-.07322	.00744	-.01070	.08219	.07293	.10009
	-.00002	-.00045	.00022	-.01975	.00228	-.00178	.00036	-.00033	.00011

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.11958	.33584	.04277	.08057	-.00853	.00587	.05555	.01347	.07145
GRADIENT	.11942	.33420	.04226	.00435	-.00114	-.00192	.05810	.01855	.07041
	.11826	.33826	.03222	-.07172	.00543	-.01309	.05679	.01573	.06744
	-.00015	.00030	-.00044	-.01904	.00187	-.00200	.00016	.00004	-.00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.11865	.53171	.03551	.07761	-.00633	.00970	.05432	.00947	.06415
GRADIENT	.11913	.52431	.04060	.00330	-.00194	.00036	.05650	.00260	.06932
	.11724	.52372	.03835	-.07087	.00329	-.00889	.05772	.00220	.06516
	-.00018	-.00100	.00035	-.01656	.00120	-.00232	.00043	-.00001	.00005

REPRODUCTION  
 OF ORIGINAL



REFERENCE DATA

SREF = 2690.0000 SQ.FT.

LREF = 474.8000 IN.

BREF = 936.6800 IN.

SCALE = .0300

PARAMETRIC DATA

RUDDER = .000

BDFLAP = 22.530

ELVN-R = -10.000

SPOBRK = 55.000

ELVN-L = -10.000

MACH = .600

ALPHA = -4.000

BETA

CA

CN

CLM

CY

CYN

CBL

CAF

CNF

CLMF

GRADIENT

CA

CN

CLM

CY

CYN

CBL

CAF

CNF

CLMF

RV/L = 4.85

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

CA

CN

CLM

CY

CYN

CBL

CAF

CNF

CLMF

GRADIENT

CA

CN

CLM

CY

CYN

CBL

CAF

CNF

CLMF

RV/L = 4.85

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

CA

CN

CLM

CY

CYN

CBL

CAF

CNF

CLMF

GRADIENT

CA

CN

CLM

CY

CYN

CBL

CAF

CNF

CLMF

RV/L = 4.85

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

CA

CN

CLM

CY

CYN

CBL

CAF

CNF

CLMF

GRADIENT

CA

CN

CLM

CY

CYN

CBL

CAF

CNF

CLMF

RV/L = 4.85

GRADIENT INTERVAL = -5.00/ 5.00

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

(KE8070) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.34682	.45166	.06675	.13586	-.01539	.01900	-.01641	.42983	.09401
-4.000	.04839	.44116	.07514	.06869	-.00535	.00638	-.0.256	.42032	.10129
.000	.05113	.43413	.07950	.00426	-.00044	-.00397	-.00681	.41509	.10528
4.000	.04983	.43707	.07332	-.05721	.00376	-.01352	-.00709	.41592	.09561
8.000	.04487	.45330	.06642	-.13424	.01360	-.02487	-.01090	.43294	.09332
GRADIENT	.00012	-.00051	-.00023	-.01574	.00114	-.00249	.00068	-.00043	-.00021

0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

(KE8071) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = -5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-4.000	.19366	-.27917	.11065	.07709	-.00318	-.00111	.12842	-.30358	.14164
.000	.19523	-.28473	.11545	-.00587	.00415	-.00637	.13138	-.30846	.14571
4.000	.19264	-.27757	.11028	-.08813	.01141	-.01101	.13025	-.30079	.13993
GRADIENT	-.00013	.00020	-.00005	-.02065	.00182	-.00124	.00023	.00035	-.00021

ALPHA = .000

BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-4.000	.19028	-.06046	.06480	.06954	-.00192	-.00033	.12267	-.08561	.09668
.000	.19127	-.06051	.06773	-.00621	.00461	-.00577	.12574	-.08483	.09665
4.000	.19048	-.05751	.06470	-.08120	.01092	-.01070	.12507	-.08191	.09565
GRADIENT	.00002	.00037	-.00001	-.01884	.00160	-.00130	.00030	.00046	-.00010

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(KE8071) ( 10 FEB 76 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

PARAMETRIC DATA

RUDDER = -5.000  
BOFLAP = 16.300  
ELVN-R = -1.000  
SPOBRK = 55.000  
E1'N-L = -10.000  
MACH = 1.400

ALPHA = 4.000  
BETA = -4.000  
GRADIENT = 4.000

CA .18285  
CN .15354  
CY .06446  
CLM .02560  
CYN .00040  
CBL .00152  
CLM .02560  
CYN .00040  
CBL .00152  
CLM .02560  
CYN .00040  
CBL .00152  
CLM .02560  
CYN .00040  
CBL .00152

ALPHA = 3.000  
BETA = -4.000  
GRADIENT = 4.000

CA .17414  
CN .35552  
CY .06048  
CLM .00281  
CYN .00193  
CBL .00141  
CLM .00281  
CYN .00193  
CBL .00141  
CLM .00281  
CYN .00193  
CBL .00141  
CLM .00281  
CYN .00193  
CBL .00141

ALPHA = 12.000  
BETA = -4.000  
GRADIENT = 4.000

CA .16576  
CN .55878  
CY .06492  
CLM .02799  
CYN .00196  
CBL .00214  
CLM .02799  
CYN .00196  
CBL .00214  
CLM .02799  
CYN .00196  
CBL .00214  
CLM .02799  
CYN .00196  
CBL .00214

ALPHA = 16.000  
BETA = -4.000  
GRADIENT = 4.000

CA .15711  
CN .75844  
CY .06065  
CLM .04597  
CYN .00685  
CBL .00352  
CLM .04597  
CYN .00685  
CBL .00352  
CLM .04597  
CYN .00685  
CBL .00352  
CLM .04597  
CYN .00685  
CBL .00352

CAF .11493  
CNF .12837  
CLMF .05765  
CAF .11764  
CNF .12424  
CLMF .06077  
CAF .11827  
CNF .13232  
CLMF .05761  
CAF .00042  
CNF .00049  
CLMF .00001

CAF .10532  
CNF .33000  
CLMF .02959  
CAF .10708  
CNF .332.9  
CLMF .03161  
CAF .10816  
CNF .33845  
CLMF .02964  
CAF .00036  
CNF .00'06  
CLMF .00001

CAF .09657  
CNF .53314  
CLMF .00483  
CAF .09843  
CNF .53528  
CLMF .00'63  
CAF .09824  
CNF .53471  
CLMF .00584  
CAF .00021  
CNF .00026  
CLMF .00013

CAF .08680  
CNF .73270  
CLMF .01324  
CAF .08787  
CNF .73840  
CLMF .01475  
CAF .08978  
CNF .73334  
CLMF .01227  
CAF .00037  
CNF .00008  
CLMF .00012

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

(KE8072) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.000 SQ.FT.  
 LREF = 474.8000 IN.  
 SREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -5.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .19885  
 .19752  
 .19553  
 -.00029

CN -.34045  
 -.34523  
 -.33713  
 .00042

CLM .15272  
 .15647  
 .15157  
 -.00014

CY .08053  
 -.00450  
 -.08881  
 -.02117

CBL -.00161  
 -.00726  
 -.01228  
 -.00133

CNF -.36788  
 -.37109  
 -.36304  
 .00061

CAF .12423  
 .12752  
 .12731  
 .00039

CLMF .18723  
 .18945  
 .18476  
 -.00031

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .19558  
 .19610  
 .19568  
 .00001

CN -.08151  
 -.08294  
 -.07352  
 .00025

CLM .08990  
 .09211  
 .08620  
 -.00021

CY .07223  
 -.00392  
 -.08183  
 -.01926

CBL -.00030  
 -.00654  
 -.01244  
 -.00152

CNF -.10952  
 -.11002  
 -.10623  
 .00041

CAF .12010  
 .12364  
 .12421  
 .00051

CLMF .12518  
 .12634  
 .12234  
 -.00035

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .19001  
 .19216  
 .19138  
 .00017

CN .15603  
 .15351  
 .15546  
 -.00007

CLM .04168  
 .04277  
 .04073  
 -.00012

CY .06725  
 -.00306  
 -.07530  
 -.01782

CBL -.00032  
 -.00650  
 -.01292  
 -.00165

CNF .12784  
 .12533  
 .12801  
 .00002

CAF .11396  
 .11640  
 .11815  
 .00052

CLMF .07743  
 .07862  
 .07605  
 -.00017

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .18226  
 .18315  
 .18359  
 .00018

CN .37406  
 .38014  
 .38550  
 .00143

CLM .00843  
 .00678  
 .00549  
 -.00037

CY .06457  
 -.00168  
 -.07030  
 -.01686

CBL .00086  
 -.00628  
 -.01301  
 -.00173

CNF .34511  
 .35109  
 .35682  
 .00146

CAF .10405  
 .10558  
 .10723  
 .00040

CLMF .04526  
 .04371  
 .04233  
 -.00037

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA .17457  
 .17421  
 .17354  
 .00025

CN .59428  
 .60194  
 .59864  
 .00055

CLM -.01583  
 -.01558  
 -.01413  
 .00021

CY .06301  
 -.00379  
 -.07273  
 -.01697

CBL .00347  
 -.00446  
 -.01241  
 -.00198

CNF .56446  
 .57318  
 .56942  
 .00062

CAF .09380  
 .09696  
 .09772  
 .00049

CLMF .02213  
 .02114  
 .02339  
 .00016



DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

(KE8074) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.000 SQ.FT.  
 LREF = 474.800 IN.  
 BREF = 935.650 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -5.000 SPCKRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .900

## PARAMETRIC DATA

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .11918  
 CN .42045  
 CLM .14141  
 CY .07357  
 CYN -.00314  
 CBL -.00897

CAF .06244  
 CNF -.44151  
 CLMF .16903

CAF .06599  
 CNF -.45166  
 CLMF .17541

CAF .06737  
 CNF -.44324  
 CLMF .16930

CAF .00062  
 CNF -.00022  
 CLMF .00316

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA .12200  
 CN .17397  
 CLM .11905  
 CY .07150  
 CYN -.00351  
 CBL -.00451

CAF .06568  
 CNF -.19476  
 CLMF .14545

CAF .06948  
 CNF -.20141  
 CLMF .15042

CAF .06879  
 CNF -.19295  
 CLMF .14360

CAF .00039  
 CNF -.00023  
 CLMF -.00023

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA .11711  
 CN .07299  
 CLM .09053  
 CY .06972  
 CYN -.00306  
 CBL -.00077

CAF .06103  
 CNF .05208  
 CLMF .11690

CAF .06439  
 CNF .04564  
 CLMF .12196

CAF .06524  
 CNF .05442  
 CLMF .11727

CAF .00053  
 CNF .00029  
 CLMF .00005

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA .11364  
 CN .31550  
 CLM .06314  
 CY .06770  
 CYN -.00179  
 CBL .00099

CAF .05944  
 CNF .29509  
 CLMF .06909

CAF .05999  
 CNF .28992  
 CLMF .06361

CAF .06115  
 CNF .29746  
 CLMF .06546

CAF .00021  
 CNF .00030  
 CLMF -.00045

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA .11110  
 CN .51066  
 CLM .05999  
 CY .06634  
 CYN .00027  
 CBL .00574

CAF .05731  
 CNF .49084  
 CLMF .08109

CAF .06048  
 CNF .46373  
 CLMF .06609

CAF .06176  
 CNF .46531  
 CLMF .08352

CAF .00056  
 CNF -.00069  
 CLMF .00031

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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CA148 -140 A/B/C CAVITY P., BASE P., ADJUSTED (KE8075) ( 10 FEB 76 )

REFERENCE DATA

SEEF = 2630.0000 SQ.FT. XMRP = 1076.6500 IN. XO  
 CREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = -5.000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELV'L = -10.000  
 ELVN-R = -10.000 MACH = .600

PARAMETRIC DATA

RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.08517	-.34955	.09182	.13510	-.00715	-.00769	.03118	-.36991	.11711	
-4.000	.09230	-.35912	.09752	.05914	.00163	-.01012	.03846	-.37796	.12234	
.000	.09471	-.35852	.10165	-.01357	.00727	-.00958	.04100	-.38785	.12610	
4.000	.09212	-.35821	.09395	-.08565	.01295	-.00859	.03931	-.37771	.12065	
8.000	.08641	-.34636	.09138	-.16264	.02098	-.00896	.03598	-.36542	.11618	
GRADIENT	-.00002	-.00001	-.00021	-.01812	.00141	.00019	.00011	.00003	-.00021	

RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.09507	-.15650	.08667	.13420	-.00818	-.00099	.03907	-.17754	.11279	
-4.000	.09941	-.15597	.09290	.05861	.00145	-.00625	.04410	-.18591	.11796	
.000	.10142	-.17270	.09282	-.01266	.00700	-.00825	.04668	-.19221	.12147	
4.000	.09344	-.16497	.09109	-.08439	.01258	-.01030	.04708	-.18446	.11625	
8.000	.09426	-.15215	.08557	-.16045	.02055	-.01337	.04329	-.17145	.11160	
GRADIENT	.00000	.00012	-.00021	-.01787	.00139	-.00051	.00037	.00018	-.00021	

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.09351	-.02577	.09693	.13525	-.00937	-.00356	.03403	-.00478	.11291	
-4.000	.09346	-.02354	.09174	.05934	.00085	-.00352	.03854	.00323	.11729	
.000	.09297	.01401	.09350	-.01001	.00623	-.00784	.04292	-.00506	.12103	
4.000	.09256	.02665	.09380	-.09095	.01216	-.01209	.03936	.00690	.11398	
8.000	.08727	.03581	.08579	-.15778	.02055	-.01775	.03659	.01645	.11038	
GRADIENT	-.00011	.00039	-.00037	-.01754	.00141	-.00107	.00018	.00046	-.00041	

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
-8.000	.09353	-.22135	.09414	.13373	-.01031	-.00958	.01237	.00013	.11047	
-4.000	.09190	-.21956	.09079	.06088	.00004	-.00118	.01795	.19946	.11600	
.000	.07165	-.20527	.09593	-.00691	.00539	-.00784	.02260	.18537	.11993	
4.000	.07135	-.21702	.08870	-.07726	.01157	-.01430	.02157	.19792	.11328	
8.000	.06736	-.22412	.09541	-.15357	.01997	-.02265	.01711	.20467	.11073	
GRADIENT	-.00007	-.00032	-.00026	-.01727	.00144	-.00154	.00045	-.00019	-.00034	

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

(KE8075) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = 12.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT  
 -1.00007

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = -5.000 SPCBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

CAF	CNF	CLMF
-01592	.40979	.10748
-01006	.40216	.11553
-00524	.39316	.11936
-00517	.40283	.11158
-00897	.41590	.10533
.00061	.00039	-.00046

0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

(KE8076) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT  
 .00011

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = -10.000 SPCBRK = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.400

CAF	CNF	CLMF
.10905	-.24474	.06329
.11130	-.25032	.06358
.11028	-.24659	.06458
.00015	-.00023	.00020

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT  
 .00035

CAF	CNF	CLMF
.10557	-.03217	.04350
.10663	-.03766	.04850
.10816	-.04716	.04716
.00032	-.00056	.00046



DATE 03 MAY 75

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

PAGE 401

(KE8076) ( 10 FEB 76 )

OA148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 935.8000 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPOBRK = .000  
BDFLAP = -11.700 ELVN-L = 10.000  
ELVN-R = -10.000 MACH = 1.400

PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.15558	.20131	-.01988	.04112	.00687	.01609	.10118	.17600	.01014
-4.000	.15745	.19531	-.01473	-.01998	.00811	.01086	.10414	.17060	.01487
.000	.15915	.19301	-.01712	-.02234	.00984	.00544	.10437	.17408	.01302
GRADIENT	.00032	-.00029	.00035	-.01543	.00037	-.00133	.00040	-.00024	.00036

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.14780	.40685	-.04634	.03785	.00721	.01781	.09361	.38174	-.01662
-4.000	.14898	.39811	-.04152	-.01902	.00661	.01218	.09603	.37373	-.01247
.000	.15126	.39752	-.04231	-.07571	.02649	.00647	.09597	.37195	-.01222
GRADIENT	.00043	-.00117	.00043	-.01419	-.00009	-.00142	.00029	-.00122	.00055

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.14239	.60582	-.05795	.04182	.00667	.01809	.08786	.58019	-.03753
-4.000	.14466	.60273	-.06691	-.01847	.00609	.01356	.08950	.57724	-.03659
.000	.14522	.59306	-.06585	-.07978	.00622	.00818	.08842	.57294	-.03480
GRADIENT	.00035	-.00085	.00026	-.01520	-.00006	-.00124	.00007	-.00091	.00034

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.13726	.80281	-.08418	.03905	.01047	.02012	.08043	.77655	-.05302
-4.000	.14070	.80442	-.08392	-.01677	.00479	.01390	.08237	.7707	-.05173
.000	.14104	.79595	-.09117	-.07363	.00079	.00753	.08151	.76827	-.04871
GRADIENT	.00047	-.00086	.00038	-.01409	-.00121	-.00157	.00014	-.00104	.00054

... 1725 FORCE DATA - 0A148 ( AMES 11-073-1 )

CAVITY P.. BASE P.. ADJUSTED

( 97 834 2 : : FEB 76 )

## PARAMETRIC CATA

REFERENCE DATA

RUDDER =	-10.000	SPDBRK =	.000
BOFLAP =	-11.700	ELVN-L =	10.000
ELVN-R =	-10.000	MACH =	1.250

SPBF	=	2690.0000	SQ.FT.	XMAP	=	1076.6800	IN.	XO
LFEE	=	474.8000	IN.	YMAP	=	.0000	IN.	YO
SEEF	=	936.6800	IN.	ZMAP	=	375.0000	IN.	ZO
SCALE	=	.0300						

GRADIENT INTERVAL = -5.00/ 5.00

	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BE4	1.6530	-25332	.08012	.03665	.00938	.01901	.10541	-.28734	.11269
BE3	1.6731	-27037	.09539	-.04146	.01581	.01577	.10766	-.29802	.11959
BE2	1.6738	-18754	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE1	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE0	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-1	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-2	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-3	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-4	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-5	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-6	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-7	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-8	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-9	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-10	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-11	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-12	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-13	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-14	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-15	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-16	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-17	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-18	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-19	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-20	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-21	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-22	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-23	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-24	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-25	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-26	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-27	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-28	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.29563	.11703
BE-29	1.6738	-26760	.09358	-.11854	.02232	.01132	.10733	-.2	

3.03 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

3.02 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

Parameter	Estimate	Standard Error	t-Statistic	p-Value	95% CI
Intercept	1.0000	0.0000	1.0000	1.0000	1.0000
Gradient	-5.0000	0.0000	-5.0000	0.0000	-5.0000

	C	CY	CBL	CAF	CNF	CLMF
B 000	-0391	-0317	.0299	.09465	.41298	-01259
B 001	-02384	-02384	.01553	.09755	.41153	-01018
B 002	-02193	-02193	.00899	.09633	.40935	-00809
B 003	-02193	-02193	.01079	.00899	.40047	-00056
B 004	-02193	-02193	.00332	.00046	.	.

3 02 CREDIT EVAL = -5.00/ 5.00

Case	Y	CYN	CB	CAF	CNF
1	0.2916	0.0908	0.02546	0.2728	0.3393
2	0.2838	0.0978	0.0180	0.0955	0.3393
3	0.2947	0.1008	0.0178	0.3401	0.3393
4	0.1445	0.0013	-0.0196	0.0032	0.3393

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 403

'KES078) ( 10 FEB 76 )

0A148 -140 A/B/C CAVITY P.. BASE P.. ADJUSTED

## REFERENCE DATA

REF = 2830.0000 SQ.FT. XMRP = 1076.6900 IN. X0  
 LREF = 474.6000 IN. YMRP = .0000 IN. Y0  
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPCSRX = .000  
 EDELAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.16039	-.30312	.09281	.02367	.01302	.02106	.09977	-.33172	.12758
	.16183	-.32002	.10147	-.05425	.01992	.01948	.10102	-.34862	.13539
	.16569	-.33529	.10399	-.13370	.02790	.01817	.10141	-.35550	.14025
GRADIENT	.00066	-.00277	.00140	-.01967	.00186	-.00336	.00020	-.00297	.00158

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.15907	-.03964	.04713	.02034	.01221	.02617	.10073	-.05705	.08033
	.15956	-.05129	.05498	-.05087	.01922	.02003	.10034	-.07892	.08929
	.16314	-.05219	.05211	-.12212	.02554	.01139	.10197	-.07836	.08668
GRADIENT	.00051	-.00132	.00062	-.01781	.00167	-.00177	.00016	-.00149	.00079

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.16029	.22610	.00112	.01973	.01181	.02681	.10127	.19335	.03472
	.16055	.21517	.00381	-.04172	.01534	.02007	.10200	.18769	.03979
	.16372	.21455	.00647	-.11173	.02269	.01136	.10311	.16635	.04065
GRADIENT	.00043	-.00144	.00067	-.01643	.00135	-.00193	.00023	-.00154	.00077

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.15542	.46224	-.02993	.01620	.01172	.02840	.09494	.43412	.00401
	.15700	.45620	-.02836	-.04307	.01471	.02196	.09531	.42693	.00560
	.16074	.44490	-.02376	-.10589	.02004	.01307	.09613	.41563	.01137
GRADIENT	.00066	-.00217	.00076	-.01526	.00104	-.00192	.00040	-.00231	.00092

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
BETA	.14957	.69640	-.04435	.01792	.01016	.03152	.06555	.66680	-.00355
	.15413	.67828	-.04215	-.04100	.01341	.02213	.06915	.64775	-.00596
	.15456	.67011	-.04071	-.10024	.01731	.01363	.06065	.63391	-.00457
GRADIENT	.00062	-.00204	.00045	-.01477	.00089	-.00224	.00060	-.00211	.00054

DATE 03 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 434

0A148 -140 A/B/C CAVITY P.L. BASE P.L. ADJUSTED

(KES079 10 FEB 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 293.0000 SQ.FT. YMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = -10.000 SPEEDK = .000  
 BDEFLAP = -11.700 ELVPL = 10.000  
 ELVN-R = -10.000 MACH = .950

RM/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

-4.000

-4.000

-4.000

-4.000

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CA .09042  
 CN -1.30339  
 CLM .06938  
 CY .01874  
 CYN .01233  
 CBL .02445  
 CAF .05329  
 CLMF .08791

RM/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

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CA .09042  
 CN -1.30339  
 CLM .06938  
 CY .01874  
 CYN .01233  
 CBL .02445  
 CAF .05329  
 CLMF .08791

RM/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

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CA .09042  
 CN -1.30339  
 CLM .06938  
 CY .01874  
 CYN .01233  
 CBL .02445  
 CAF .05329  
 CLMF .08791

RM/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

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CA .09042  
 CN -1.30339  
 CLM .06938  
 CY .01874  
 CYN .01233  
 CBL .02445  
 CAF .05329  
 CLMF .08791

RM/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

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CA .09042  
 CN -1.30339  
 CLM .06938  
 CY .01874  
 CYN .01233  
 CBL .02445  
 CAF .05329  
 CLMF .08791

RM/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

-4.000

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DATE 08 MAY 76

TABULATED FORCE DATA - CAL-48 (AMES 11-073-1)

PAGE 405

CAL-48 -140 A/B/C CAVITY P.L. BASE P.L. ADJUSTED

WEBCSD 10 FEB 76

REFERENCE DATA

REF = 2650 0000 20.FT. XMRP = 1076.6500 IN. X0  
LREF = 474.6000 IN. YMRP = 1076.6500 IN. Y0  
BREF = 536.6000 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RUGER = -10.000 SPEEDK = .000  
BDCLAP = -11.000 ELXN-L = 10.000  
ELXN-R = -10.000 WACH = .000

PARAMETRIC DATA

R/V/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

CA .05165  
CB .05165  
CC .05165  
CD .05165  
CE .05165  
CF .05165  
CG .05165  
CH .05165  
CI .05165  
CJ .05165  
CK .05165  
CL .05165  
CM .05165  
CN .05165  
CO .05165  
CP .05165  
CQ .05165  
CR .05165  
CS .05165  
CT .05165  
CU .05165  
CV .05165  
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CX .05165  
CY .05165  
CZ .05165

CA .05165  
CB .05165  
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CE .05165  
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CG .05165  
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CI .05165  
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CX .05165  
CY .05165  
CZ .05165

ALPHA = .000

BETA

CA .05165  
CB .05165  
CC .05165  
CD .05165  
CE .05165  
CF .05165  
CG .05165  
CH .05165  
CI .05165  
CJ .05165  
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CU .05165  
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CA .05165  
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CO .05165  
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CQ .05165  
CR .05165  
CS .05165  
CT .05165  
CU .05165  
CV .05165  
CW .05165  
CX .05165  
CY .05165  
CZ .05165

ALPHA = 4.000

BETA

CA .05165  
CB .05165  
CC .05165  
CD .05165  
CE .05165  
CF .05165  
CG .05165  
CH .05165  
CI .05165  
CJ .05165  
CK .05165  
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CS .05165  
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CU .05165  
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CZ .05165

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CS .05165  
CT .05165  
CU .05165  
CV .05165  
CW .05165  
CX .05165  
CY .05165  
CZ .05165

ALPHA = 6.000

BETA

CA .05165  
CB .05165  
CC .05165  
CD .05165  
CE .05165  
CF .05165  
CG .05165  
CH .05165  
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CT .05165  
CU .05165  
CV .05165  
CW .05165  
CX .05165  
CY .05165  
CZ .05165

CA .05165  
CB .05165  
CC .05165  
CD .05165  
CE .05165  
CF .05165  
CG .05165  
CH .05165  
CI .05165  
CJ .05165  
CK .05165  
CL .05165  
CM .05165  
CN .05165  
CO .05165  
CP .05165  
CQ .05165  
CR .05165  
CS .05165  
CT .05165  
CU .05165  
CV .05165  
CW .05165  
CX .05165  
CY .05165  
CZ .05165



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 407

(KE8081) ( 10 FEB 76 )

0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = 10.000 SPDBRK = .000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = -11.700 ELVN-L = -10.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = 1.400  
 SCALE = .0300

## PARAMETRIC DATA

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
12.000	.000	.14973	.40530	-.04013	.01924	-.00678	-.01543	.09522	.38019	-.01002
12.000	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
12.000	-.4.000	.14498	.60476	-.05521	.08267	-.00490	-.00932	.08689	.57773	-.03333
12.000	.000	.14456	.61041	-.06572	.02303	-.02585	-.01548	.09757	.55428	-.03467
12.000	4.000	.14421	.61305	-.06651	-.04235	-.00561	-.01939	.06574	.58393	-.03434
	GRADIENT	-.00010	.00104	-.00016	-.01563	-.00009	-.00118	-.00014	.00103	-.00013

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
16.000	.000	.13935	.81221	-.08289	.01628	-.00403	-.01446	.07688	.78454	-.05037
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = 10.000 SPDBRK = .000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = -11.700 ELVN-L = -10.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = 1.250  
 SCALE = .0300

## PARAMETRIC DATA

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
16.000	.000	.15943	-.26558	.09136	.03740	-.01720	-.02080	.10812	-.29490	.12444
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
16.000	.000	.16752	-.02153	.03796	.03270	-.01420	-.01760	.10723	-.04926	.07103
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

(KE8082) ( 10 FEB 76 )

0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 (AMES 11-073-1)

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0A148 -140 A/B/C CAVITY P.. BASE P.. ADJUSTED

(KEB323) 10 FEB 76

## REFERENCE DATA

SPREF = 2890.000 SQ.FT.  
 LREF = 474.600 IN.  
 BREF = 936.600 IN.  
 SCALE = .0300

YMRP = 1076.600 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDEFK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.250

## PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

LP4	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
1.000	.15409	.20725	-.00453	.09700	-.01464	-.01250	-.0276	.17979	.17979	.02907
2.000	.16116	.20577	-.00470	.02993	-.01140	-.01916	.10461	.18129	.18129	.02821
3.000	.16107	.21643	-.01035	-.03521	-.00939	-.02350	.10241	.19194	.19194	.02236
4.000	.16139	.00143	-.00073	-.01653	.00066	-.00138	-.00005	.00152	.00152	-.00064

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
6.000	.15546	.43578	-.03697	.02663	-.00396	-.01910	.09779	.40928	.40928	-.00458
7.000	.15514	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
12.000	.15539	.84570	-.05538	.08656	-.00872	-.00999	.38733	.51623	.51623	-.02030
13.000	.15510	.65624	-.05849	.02618	-.00879	-.01802	.39812	.62748	.62748	-.02445
14.000	.15537	.65393	-.06090	-.03365	-.00870	-.02610	.05742	.63074	.63074	-.02809
15.000	.15526	.00179	-.00069	-.01503	.00000	-.00201	.00001	.00181	.00181	-.00072

## REFERENCE DATA

SPREF = 2890.000 SQ.FT.  
 LREF = 474.600 IN.  
 BREF = 936.600 IN.  
 SCALE = .0300

YMRP = 1076.600 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDEFK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.100

## PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
1.000	.15509	-.32406	.10951	.04883	-.02151	-.02712	.10110	-.35341	.14454	.00000
2.000	.15500	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
4.000	.15121	-.05614	.08299	.04702	-.02024	-.02525	.09998	-.06461	.09700	.00000
5.000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

0A148 -140 A/B/C CAVITY P.. BASE P.. ADJUSTED

(KEB323) 10 FEB 76



(KE8083) ( 10 FEB 76 )

0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

	IN. X	IN. Y	IN. Z	RUDDER	SPDBRK
1075	8800			10.000	0.000
375	0000			-11.700	-10.000
375	0000			10.000	1.100

### PARAMETRIC DATA

RUN 10. 0/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
+	-4	1.537	2.255	.01339	.11278	-.02354	-.01367	.10127	.18323	.04827
+	+	.1338	.0134	.0134	.04501	-.01781	-.02250	.10214	.18529	.04312
+	+	.1581	.0130	.0138	-.02288	-.01329	-.02261	.09918	.19205	.04440
GRADIENT		-.00048	.00036	-.00034	-.01596	.00128	-.00199	-.00026	.00110	-.00048

RUN NO.	0/0	RM/L =	3.20	GRADIENT INTERVAL =	-5.00/	5.00
---------	-----	--------	------	---------------------	--------	------

[illegible]

0/0	RN/L = 3.20	GRADIENT INTERVAL = -5.00/ 5.00
-----	-------------	---------------------------------

ALPHA	BETA	CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
0.000	-0.000	.15516	.66759	-.03416	.09414	-.01518	-.01117	.08635	.63572	.00337
0.000	.000	.15436	.66999	-.03458	.02835	-.01010	-.02156	.08804	.63921	.00191
0.000	0.000	.15169	.67213	-.03511	-.03298	-.00759	-.00759	.08557	.64208	.00079
GRADIENT		-.00043	.00057	-.00012	-.01589	.00395	-.00237	.00003	.00079	-.00032

(KE8C84) ( 10 FEB 76 )

CA148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

## REFERENCE DATA

[illegible]

## PARAMETRIC DATA

RUN NO.	0/0	RN/L	3.59	GRADIENT INTERVAL	-5.00/	5.00

[illegible]

Run No. 0/0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

(KE8084) ( 10 FEB 76 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT.  
 LREF = 474.6000 IN.  
 BREF = 935.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .900

## PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.03376	.15337	.03861	.13337	-.02704	-.02076	.05354	.13336	.06144
.05566	.15675	.04310	.05541	-.01903	-.02850	.05645	.13758	.06525
.03280	.17099	.03821	-.01887	-.01229	-.03362	.05491	.15300	.05941
-.00012	.00220	-.00005	-.01903	.00184	-.00161	.00017	.00245	-.00025

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.03091	.39589	.02127	.04353	-.01680	-.02351	.05235	.35745	.04276
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.03250	.58483	.01420	.03364	-.01519	-.02159	.05126	.56534	.03669
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## REFERENCE DATA

SREF = 2590.0000 SQ.FT.  
 LREF = 474.6000 IN.  
 BREF = 935.6000 IN.  
 SCALE = .0300

XMRP = 1076.6500 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.62 GRADIENT INTERVAL = -5.00/ 5.00

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.07156	-.25429	.04385	.05635	-.02049	-.02763	.02584	-.27566	.06750
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ALPHA = .000  
 BETA = .000  
 GRADIENT = .000

ALPHA = .000  
 BETA = .000  
 GRADIENT = .000

CA	CN	CLM	CY	CYN	CBL	CAF	CNF	CLMF
.07696	-.06106	.03970	.05855	-.02070	-.02690	.03324	-.08192	.05299
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

(KE8085) ( 10 FEB 76 )

DATE 08 MAR 76

TABULATED FORCE DATA - 0A148 ( AXES 11-073-1 )

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0A148 -140 A/B/C CAVITY P., BASE P., ADJUSTED

(K58085) ( 10 FEB 76 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = .000  
BDFLAP = -11.700 ELVN-L = -10.000  
ELVN-R = 10.000 MACH = .600

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
GRADIENT

CAF .02738 CNF .10725 CLMF .06195  
.00000 .00000 .00000

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
GRADIENT

CAF .00754 CNF .30830 CLMF .05875  
.00000 .00000 .00000

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
GRADIENT

CAF -.01770 CNF .51782 CLMF .05749  
.00000 .00000 .00000

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8001) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
BDFLAP = 16.300 ELVN-L = .000  
ELVN-R = .000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
GRADIENT

CA1 .01022 CA2 .03148 CA3 .00472 CLM3 .00069 CLM4 .00282  
CA1 .01011 CA2 .03117 CA3 .00459 CLM3 .00069 CLM4 .00280  
CA1 .01009 CA2 .03094 CA3 .00454 CLM3 .00069 CLM4 .00280  
CA1 .00991 CA2 .03067 CA3 .00454 CLM3 .00069 CLM4 .00280



DATE 08 MAY 78

TABULATED FORCE DATA - CA148 (AMES 11-073-1)

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CA148 -140 A/B/C/R FOREBODY INCREMENTS

(EEB002) (23 AUG 75)

## REFERENCE DATA

SPBP = 2620.0000 SQ.FT.  
 LREF = 474.5000 IN.  
 BREF = 935.6000 IN.  
 SCALE = .0001

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 .000  
 .000  
 GRADIENT

PN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01113	-.01110	.00763	.03495	-.00678	.00520	.00398	.01219	.00311
.01092	-.01089	.00732	.03355	-.00651	.00498	.00394	.01160	.00301
.01116	-.01113	.00715	.03277	-.00635	.00468	.00382	.01179	.00300
.00000	-.00000	-.00005	-.00027	.00005	-.00004	-.00001	-.00005	-.00001

RUDDER = .000 SFCBRK = 55.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RM/L = 3.01

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 .000  
 .000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01103	-.01100	.00742	.03401	-.00659	.00495	.00393	.01188	.00303
.01074	-.01071	.00707	.03241	-.00629	.00485	.00381	.01128	.00288
.01123	-.01120	.00693	.03177	-.00616	.00479	.00380	.01158	.00295
.00003	-.00003	-.00005	-.00028	.00005	-.00002	-.00000	-.00004	-.00001

RM/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 .000  
 .000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01114	-.01111	.00748	.03429	-.00655	.00494	.00392	.01176	.00300
.01097	-.01094	.00724	.03319	-.00644	.00491	.00392	.01153	.00294
.01135	-.01131	.00709	.03248	-.00630	.00480	.00380	.01152	.00294
.00003	-.00003	-.00005	-.00023	.00004	-.00002	-.00000	-.00003	-.00001

RM/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 .000  
 .000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01173	-.01170	.00783	.03590	-.00636	.00525	.00399	.01232	.00314
.01154	-.01151	.00771	.03533	-.00635	.00510	.00395	.01219	.00311
.01158	-.01155	.00755	.03462	-.00621	.00495	.00393	.01200	.00305
.00001	-.00001	-.00003	-.00016	.00003	-.00004	-.00001	-.00004	-.00001

RM/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 .000  
 .000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01209	-.01205	.00807	.03700	-.00618	.00545	.00403	.01280	.00326
.01202	-.01199	.00812	.03720	-.00621	.00531	.00400	.01274	.00325
.01219	-.01214	.00802	.03677	-.00613	.00517	.00397	.01229	.00313
.00003	-.00003	-.00001	-.00003	.00001	-.00004	-.00001	-.00006	-.00002

DATE 08 MAY 76

CALCULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

1 1550031 ( 23 AUG 75 )

## REFERENCE DATA

CREF = 2620.0000 50 FT.  
 YREF = 1076.6500 IN. XO  
 ZREF = 375.0000 IN. YO  
 SCALE = .0001

## PARAMETRIC DATA

RUDDER = .000  
 BOLLAP = 16.300  
 ELVN-L = .000  
 ELVN-R = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01221	-.01218	.00229	.03797	-.00736	.00545	.00103	.01299	.00331
.01222	-.01199	.00204	.03655	-.00714	.00541	.00102	.01258	.00323
.01223	-.01229	.00178	.03555	-.00739	.00546	.00103	.01274	.00325
.00001	-.00001	-.00004	-.00018	.00003	.00000	.00000	-.00003	-.00001

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01225	-.01223	.00220	.03758	-.00729	.00533	.00100	.01272	.00324
.01226	-.01193	.00203	.03681	-.00714	.00539	.00101	.01260	.00321
.01227	-.01232	.00170	.03528	-.00694	.00525	.00099	.01251	.00319
.00001	-.00001	-.00005	-.00029	.00006	-.00001	-.00000	-.00003	-.00001

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01228	-.01232	.00225	.03762	-.00733	.00549	.00103	.01291	.00326
.01229	-.01232	.00226	.03787	-.00734	.00553	.00104	.01297	.00329
.01230	-.01228	.00204	.03665	-.00714	.00539	.00101	.01290	.00329
.00005	-.00005	-.00003	-.00012	.00002	-.00001	-.00000	-.00003	-.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 6.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01322	-.01318	.00366	.04052	-.00788	.00501	.00113	.01403	.00357
.01293	-.01289	.00358	.03934	-.00763	.00579	.00109	.01383	.00347
.01344	-.01341	.00389	.03939	-.00764	.00573	.00108	.01388	.00348
.00003	-.00003	-.00003	-.00015	.00003	-.00004	-.00001	-.00006	-.00001

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01363	-.01339	.00514	.04187	-.00812	.00505	.00114	.01425	.00363
.01283	-.01279	.00466	.03958	-.00769	.00576	.00108	.01369	.00349
.01351	-.01346	.00556	.03959	-.00770	.00573	.00108	.01363	.00347
.00001	-.00001	-.00006	-.00027	.00005	-.00004	-.00001	-.00008	-.00002

DATE 08 MAY 78

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EEED04) ( 23 AUG 75 )

## REFERENCE DATA

REF = 3530 0000 02.FT. XMRP = 1076.6800 IN. YO  
 REF = 474 5000 14. YMRP = .0000 IN. YO  
 REF = 305 6800 14. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPEEDK = 55.000  
 BCFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.00344	-.00942	.00564	.02586	-.00502	.00450	.00395	.00580	.00250
-3.000	.00913	-.00913	.00593	.02720	-.00527	.00459	.00386	.00595	.00254
-2.000	.00924	-.00922	.00605	.02773	-.00538	.00439	.00383	.00579	.00249
GRADIENT	-.00003	.00003	.00005	.00023	-.00005	-.00001	-.00000	-.00000	-.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.00927	-.00924	.00578	.02649	-.00514	.00458	.00385	.00598	.00254
-3.000	.00853	-.00851	.00576	.02639	-.00511	.00422	.00379	.00552	.00242
-2.000	.00923	-.00921	.00616	.02652	-.00547	.00433	.00381	.00569	.00247
GRADIENT	-.00000	.00000	.00005	.00022	-.00004	-.00003	-.00001	-.00004	-.00001

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.00894	-.00931	.00617	.02829	-.00548	.00445	.00384	.00569	.00247
-3.000	.00865	-.00863	.00584	.02675	-.00519	.00417	.00379	.00520	.00234
-2.000	.00867	-.00835	.00563	.02581	-.00501	.00425	.00380	.00532	.00237
GRADIENT	-.00001	.00001	-.00007	-.00031	.00006	-.00002	-.00000	-.00005	-.00001

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.00865	-.00864	.00596	.02731	-.00530	.00425	.00380	.00520	.00234
-3.000	.00857	-.00854	.00556	.02549	-.00494	.00409	.00377	.00502	.00230
-2.000	.00977	-.00974	.00531	.02433	-.00472	.00397	.00375	.00470	.00222
GRADIENT	.00001	-.00001	-.00008	-.00037	.00007	-.00004	-.00001	-.00006	-.00002

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.00854	-.00857	.00572	.02521	-.00508	.00433	.00382	.00558	.00247
-3.000	.00839	-.00837	.00540	.02473	-.00480	.00415	.00378	.00514	.00233
-2.000	.00819	-.00867	.00521	.02359	-.00463	.00403	.00376	.00492	.00235
GRADIENT	.00001	-.00001	-.00006	-.00029	.00006	-.00004	-.00001	-.00006	-.00001





DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 417

0A148 -140 A/B/C/R FOREBODY INCREMENTS 1 1EEED05 ( 23 AUG 75 )

REFERENCE DATA

REF = 2600 0000 50.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 935.6000 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

ALPHA = 12.000  
BETA  
-8.000  
-4.000  
-2.000  
0.000  
4.000  
8.000  
GRADIENT

PN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

RUDDER = .000 SDBRK = 55.000  
BDFLAP = 16.300 ELVN-L = .000  
ELVN-R = .000 MACH = .600

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00742	-.00740	.00549	.02516	-.00486	.00420	.00079	.00932	.00238
.00701	-.00693	.00517	.02371	-.00460	.00393	.00074	.00756	.00203
.00719	-.00717	.00491	.02250	-.00436	.00360	.00068	.00547	.00190
.00741	-.00738	.00464	.02125	-.00412	.00329	.00063	.00374	.00180
.00753	-.00751	.00459	.02105	-.00398	.00291	.00058	.00295	.00203
.00305	-.00035	-.00007	-.00031	.00006	-.00004	-.00001	-.00006	-.00002

REFERENCE DATA

REF = 2600 0000 50.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 935.6000 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

ALPHA = -4.000  
BETA  
-8.000  
-4.000  
-2.000  
0.000  
4.000  
8.000  
GRADIENT

PN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

RUDDER = .000 SDBRK = 55.000  
BDFLAP = 22.500 ELVN-L = .000  
ELVN-R = .000 MACH = .600

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00874	-.00872	.00582	.02666	-.00517	.00464	.00097	.00973	.00248
.00852	-.00849	.00559	.02560	-.00495	.00450	.00095	.00935	.00238
.00853	-.00850	.00581	.02661	-.00516	.00445	.00094	.00938	.00239
.00857	-.00855	.00583	.02670	-.00518	.00442	.00093	.00932	.00227
.00857	-.00855	.00584	.02639	-.00432	.00401	.00095	.00937	.00218
.00001	-.00001	.00003	.00014	-.00003	-.00001	-.00000	-.00005	-.00001

ALPHA = .000  
BETA  
-8.000  
-4.000  
-2.000  
0.000  
4.000  
8.000  
GRADIENT

PN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00863	-.00861	.00603	.02762	-.00535	.00464	.00097	.00964	.00243
.00871	-.00868	.00577	.02643	-.00512	.00458	.00094	.00952	.00245
.00837	-.00834	.00557	.02506	-.00504	.00432	.00091	.00928	.00231
.00821	-.00819	.00578	.02648	-.00514	.00417	.00089	.00916	.00216
.00857	-.00855	.00582	.02714	-.00536	.00412	.00087	.00910	.00222
.00001	-.00001	.00000	.00001	-.00000	-.00004	-.00000	-.00004	-.00004



DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 419

CA148 -140 A/B/C/R FOREBODY INCREMENTS

( 04 FEB 76 )

## REFERENCE DATA

SREF = 2693 0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 YREF = 477.8000 IN. YMRP = 0.0000 IN. Y0  
 ZREF = 938.6000 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = 1.000

ALPHA = -4.000  
 BETA  
 -4.000  
 0.000  
 0.000  
 0.000  
 GRADIENT

RUCCER = .000 SREFV = 55.000  
 ESFLAP = 22.500 ELN-L = .000  
 ELN-R = .000 WACH = .900

## PARAMETRIC DATA

RM/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01038	-.01035	.00674	.03087	-.00593	.00495	.00031	.00088	.00280
.01023	-.01021	.00569	.03087	-.00593	.00495	.00031	.00088	.00280
.01021	-.01018	.00581	.03165	-.00514	.00475	.00039	.00073	.00275
-.00002	.00002	.00002	.00010	-.00002	.00001	-.00002	.00000	.00002

ALPHA = .000  
 BETA  
 -4.000  
 0.000  
 0.000  
 0.000  
 GRADIENT

RM/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01044	-.01041	.00591	.03168	-.00514	.00495	.00031	.00088	.00280
.01039	-.00955	.00540	.02931	-.00509	.00480	.00030	.00085	.00274
.01021	-.01018	.00583	.03131	-.00507	.00485	.00030	.00085	.00275
-.00003	.00003	-.00001	-.00005	.00001	.00001	-.00001	.00007	.00002

ALPHA = .000  
 BETA  
 -4.000  
 0.000  
 0.000  
 0.000  
 GRADIENT

RM/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00953	-.00950	.00635	.02913	-.00555	.00455	.00035	.00091	.00250
.00955	-.00952	.00642	.02949	-.00570	.00451	.00035	.00091	.00250
.00970	-.00957	.00541	.02937	-.00570	.00454	.00035	.00091	.00255
.00001	.00001	.00001	.00003	-.00001	.00002	-.00001	.00003	.00001

ALPHA = 8.000  
 BETA  
 -4.000  
 0.000  
 0.000  
 0.000  
 GRADIENT

RM/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00935	-.00932	.00657	.03010	-.00584	.00483	.00031	.00083	.00273
.00955	-.00953	.00579	.02927	-.00568	.00454	.00030	.00085	.00259
.00987	-.00974	.00579	.02938	-.00568	.00454	.00030	.00085	.00259
.00000	.00000	-.00002	-.00010	.00002	.00002	-.00001	.00003	.00003

ALPHA = 12.000  
 BETA  
 -4.000  
 0.000  
 0.000  
 0.000  
 GRADIENT

RM/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01037	-.01034	.00546	.02909	-.00574	.00484	.00031	.00085	.00280
.00957	-.00954	.00589	.02903	-.00542	.00456	.00030	.00085	.00280
.01010	-.01007	.00501	.02973	-.00508	.00456	.00030	.00085	.00280
-.00003	.00003	.00003	.00014	-.00003	.00005	-.00001	.00005	.00004

DATE 8 MAY 78

TABLE 1. CALCULATED FORCE DATA

324 3300

STINZMANI ADOBEBO, Y/C/R. I - B41VC

1 JUL 67 1 3706331

## REFERENCE DATA

```

SEEF = 2690.000 SQ.FT.      XMRP =
JREF = 477.600 IN.          YMRP =
BREF = 936.600 IN.          ZMRP =
SCALE = .0300

```

RUDDER =	.000	SEERX =	85.000
BOFLAP =	22.500	ELVN-1 =	.000
ELVN-R =	.000	WACH =	1.400

FRAMETRIC DATA

RM/L = R' IENT INTERVAL = -5.00/ 5.00

ALPHA = -4.00  
BETA = -1.00  
GRADIENT = 0.00

CLM3	CA4	CLM4
.00023	.01141	.00291
.00096	.01127	.00287
.00037	.01123	.00265
.00000	-.00002	-.00001

PN/L =	2.92	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = .000  
SET = 1  
GRAB = 1

CLM3	CA4	CLM4
.00091	.0137	.00293
.00029	.0123	.00099
.00028	.0132	.00033
.00000	-.00001	-.00000

FN/L =	2.92	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = 4.000  
SETA -4.000  
GRADIENT 4.000

CLM3	CA4	CLM4
.00030	.01111	.00233
.00096	.01074	.00274
.00085	.01105	.00232
.00001	-.00301	-.00000

RN/L =	2.92	GRADIENT INTERVAL =	-5.0C/	5.00
--------	------	---------------------	--------	------

ALPHA = 8.000  
BETA  
-4.000  
-1.000  
4.000  
GRADIENT

CLM3	CA4	CLM4
.00091	.01136	.00289
.00098	.01104	.00291
.00086	.01086	.00277
.00000	-.00006	-.00002

RN/L =	2.92	GRADIENT	INTERVAL =	-5.00;	5.00
--------	------	----------	------------	--------	------

ALPHA = 12.000  
BETA  
-4.000  
-1.000  
5.000  
GRADIENT

CLM3	CA4	CLM4
.00093	.01163	.00296
.00092	.01171	.00299
.00093	.01120	.00295
.00000	-.00005	-.00001

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8008) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01206	-.01203	.00784	.03593	-.00697	.00499	.00094	.01223	-.00312
.01204	-.01201	.00793	.03633	-.00704	.00512	.00096	.01226	-.00312
-.00000	-.01201	.00793	.03633	-.00704	.00508	.00096	.01156	-.00295
	.00000	.00001	.00005	-.00001	.00001	.00000	-.00008	-.00002

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8009) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1 .01146  
 .01109  
 .01153  
 .00001

CLM1  
 -.01142  
 -.01106  
 -.01150  
 -.00001

CN2 .00765  
 .00738  
 .00728  
 -.00005

CA2 .03506  
 .03383  
 .03338  
 -.00021

CLM2  
 -.00680  
 -.00656  
 -.00647  
 .00004

CA3 .00544  
 .00522  
 .00502  
 -.00005

CLM3 .00102  
 .00099  
 .00094  
 -.00001

CA4 .01289  
 .01246  
 .01217  
 -.00009

CLM4  
 -.00328  
 -.00318  
 -.00310  
 -.00002

RUDDER = .000 SPDBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

## REFERENCE DATA

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1 .01150  
 .01142  
 .01170  
 .00003

CLM1  
 -.01146  
 -.01139  
 -.01167  
 -.00003

CN2 .00766  
 .00750  
 .00734  
 -.00004

CA2 .03508  
 .03437  
 .03363  
 -.00018

CLM2  
 -.00680  
 -.00656  
 -.00652  
 .00004

CA3 .00541  
 .00515  
 .00508  
 -.00004

CLM3 .00102  
 .00097  
 .00096  
 -.00001

CA4 .01259  
 .01213  
 .01221  
 -.00005

CLM4  
 -.00321  
 -.00309  
 -.00311  
 -.00001

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 422

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE6D09) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01190	-.01186	.00769	.03523	-.00683	.00535	.00101	.01252	.00319
.01208	-.01205	.00778	.03520	-.00692	.00537	.00101	.01251	.00319
.01211	-.01207	.00768	.03520	-.00683	.00515	.00097	.01200	.00306
.00003	-.00003	-.00000	-.00000	.00000	-.00003	-.00000	-.00005	-.00002

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01276	-.01273	.00811	.03716	-.00721	.00551	.00104	.01288	.00328
.01294	-.01290	.00836	.03830	-.00743	.00547	.00103	.01302	.00332
.01274	-.01271	.00839	.03845	-.00746	.00539	.00101	.01247	.00318
-.00000	.00000	.00004	.00016	-.00003	-.00002	-.00000	-.00005	-.00001

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01339	-.01336	.00868	.03979	-.00772	.00571	.00108	.01341	.00342
.01322	-.01318	.00866	.03969	-.00770	.00567	.00107	.01357	.00346
.01340	-.01336	.00868	.03977	-.00771	.00560	.00105	.01304	.00332
.00000	-.00000	-.00000	-.00000	.00000	-.00001	-.00000	-.00005	-.00001

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = .000 SPDBRK = 85.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 22.500 ELVN-L = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = .000 MACH = 1.100  
 SCALE = .0300

PARAMETRIC DATA

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01258	-.01254	.00842	.03860	-.00748	.00608	.00114	.01405	.00358
-4.000	.01247	-.01244	.00811	.03716	-.00721	.00577	.00109	.01327	.00338
.000	.01277	-.01273	.00815	.03736	-.00724	.00574	.00108	.01331	.00339
GRADIENT	.00002	-.00002	-.00003	-.00015	.00003	-.00004	-.00001	-.00009	-.00002

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01254	-.01250	.00813	.03726	-.00723	.00593	.00112	.01362	.00347
-4.000	.01215	-.01212	.00792	.03530	-.00704	.00561	.00106	.01278	.00326
.000	.01252	-.01249	.00783	.03598	-.00695	.00546	.00103	.01279	.00326
GRADIENT	-.00000	.00000	-.00004	-.00017	.00003	-.00006	-.00001	-.00010	-.00003

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01304	-.01300	.00836	.03831	-.00743	.00601	.00113	.01397	.00356
-4.000	.01286	-.01282	.00831	.03810	-.00739	.00577	.00109	.01328	.00338
.000	.01320	-.01316	.00857	.03929	-.00762	.00573	.00108	.01317	.00336
GRADIENT	.00002	-.00002	.00003	.00012	-.00002	-.00003	-.00001	-.00010	-.00003

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01404	-.01400	.00898	.04113	-.00798	.00642	.00121	.01492	.00380
-4.000	.01365	-.01361	.00875	.04010	-.00778	.00613	.00115	.01422	.00362
.000	.01405	-.01401	.00919	.04213	-.00817	.00607	.00114	.01402	.00357
GRADIENT	.00000	-.00000	.00003	.00013	-.00002	-.00004	-.00001	-.00011	-.00003

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01471	-.01467	.00932	.04270	-.00828	.00556	.00123	.01522	.00389
-4.000	.01400	-.01396	.00915	.04194	-.00813	.00527	.00118	.01465	.00373
.000	.01465	-.01460	.00932	.04272	-.00828	.00521	.00117	.01441	.00357
GRADIENT	.00002	-.00002	.00000	.00000	-.00000	-.00004	-.00001	-.00010	-.00003

OA148 -140 A/B/C/R FOREBODY INCREMENTS

(EE9D11) ( 23 AUG 75 )

## REFERENCE DATA

SRF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BRP = 936.6800 IN.  
 SCALE = .0300

YMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000  
 BDELAP = 22.500  
 ELVN-L = .000  
 ELVN-R = .000  
 WACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1  
 -.01115  
 -.01111  
 -.01110  
 .00001

CLM2  
 .00710  
 .00716  
 .00739  
 .00004

CLM3  
 .03252  
 .03280  
 .03398  
 .00017

CLM4  
 -.00631  
 -.00636  
 -.00657  
 -.00603

CLM5  
 .00535  
 .00514  
 .00512  
 -.00003

CLM6  
 .00101  
 .00097  
 .00096  
 -.00001

CLM7  
 .01163  
 .01097  
 .01148  
 -.00002

CLM8  
 .00296  
 .00280  
 .00292  
 -.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1  
 -.01104  
 -.01070  
 -.01057  
 .00005

CLM2  
 .03697  
 .03599  
 .03200  
 .00003

CLM3  
 .03196  
 .03261  
 .03299  
 .00013

CLM4  
 -.00620  
 -.00621  
 -.00640  
 -.00002

CLM5  
 .00523  
 .00506  
 .00485  
 -.00005

CLM6  
 .00098  
 .00095  
 .00091  
 -.00001

CLM7  
 .01161  
 .01110  
 .01091  
 -.00009

CLM8

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1  
 -.01080  
 -.01046  
 -.01075  
 .00001

CLM2  
 .00697  
 .00676  
 .00680  
 -.00002

CLM3  
 .03192  
 .03099  
 .03115  
 -.00010

CLM4  
 -.00619  
 -.00601  
 -.00604  
 .00002

CLM5  
 .00542  
 .00513  
 .00497  
 -.00006

CLM6  
 .00102  
 .00097  
 .00094  
 -.00001

CLM7  
 .01168  
 .01117  
 .01106  
 -.00008

CLM8

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1  
 -.01066  
 -.01053  
 -.01095  
 -.00004

CLM2  
 .00689  
 .00679  
 .00685  
 -.00000

CLM3  
 .03198  
 .03113  
 .03141  
 -.00002

CLM4  
 -.00612  
 -.00604  
 -.00609  
 .00000

CLM5  
 .00525  
 .00511  
 .00512  
 -.00002

CLM6  
 .00099  
 .00096  
 .00096  
 -.00000

CLM7  
 .01145  
 .01079  
 .01113  
 -.00004

CLM8

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1  
 -.01087  
 -.01033  
 -.01038  
 .00006

CLM2  
 .00674  
 .00664  
 .00662  
 -.00001

CLM3  
 .03097  
 .03045  
 .03034  
 -.00007

CLM4  
 -.00599  
 -.00590  
 -.00588  
 .00001

CLM5  
 .00536  
 .00530  
 .00509  
 -.00003

CLM6  
 .00101  
 .00100  
 .00096  
 -.00001

CLM7  
 .01167  
 .01133  
 .01137  
 -.00004

CLM8



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS 1 (EE8D12) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .006  
 ELVN-R = .000 MACH = .600

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00965	-.00962	.00641	.02938	-.00570	.00537	.00101	.01083	.00276
.00974	-.00971	.00644	.02952	-.00572	.00527	.00099	.01075	.00274
.00972	-.00959	.00650	.02950	-.00578	.00527	.00099	.01067	.00272
.00975	-.00972	.00662	.03032	-.00568	.00516	.00097	.01054	.00268
.00966	-.00983	.00635	.02909	-.00564	.00469	.00088	.01015	.00259
.00000	-.00000	.00002	.00010	-.00002	-.00001	-.00000	-.00003	-.00001

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00976	-.00973	.00636	.02922	-.00567	.00520	.00098	.01071	.00273
.00962	-.00959	.00638	.02926	-.00567	.00522	.00098	.01060	.00270
.00949	-.00946	.00618	.02833	-.00549	.00505	.00095	.01033	.00263
.00965	-.00962	.00669	.03066	-.00595	.00489	.00092	.01044	.00266
.00969	-.00937	.00644	.02951	-.00572	.00474	.00089	.01010	.00257
.00000	-.00000	.00004	.00019	-.00003	-.00004	-.00001	-.00002	-.00001

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00946	-.00943	.00655	.03000	-.00582	.00504	.00095	.01074	.00274
.00939	-.00936	.00636	.02913	-.00565	.00503	.00095	.01059	.00270
.00929	-.00927	.00612	.02805	-.00544	.00481	.00090	.00993	.00253
.00944	-.00942	.00631	.02893	-.00561	.00481	.00091	.01009	.00257
.00983	-.00991	.00616	.02821	-.00547	.00450	.00085	.00998	.00254
.00001	-.00001	-.00001	-.00003	-.00000	-.00003	-.00001	-.00006	-.00002

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00946	-.00944	.00650	.02981	-.00578	.00491	.00092	.01082	.00276
.00939	-.00906	.00616	.02825	-.00548	.00489	.00092	.01012	.00258
.00923	-.00920	.00606	.02777	-.00538	.00460	.00086	.00981	.00250
.00942	-.00940	.00611	.02799	-.00543	.00473	.00089	.00996	.00254
.00959	-.00957	.00590	.02705	-.00525	.00459	.00085	.01004	.00256
.00004	-.00004	-.00001	-.00003	-.00001	-.00002	-.00000	-.00002	-.00001

DATE 08 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R FOREBODY INCREMENTS 1 (EEED12) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = .000 SPDBRK = 85.000  
LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 22.500 ELVN-L = .000  
BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO ELVN-R = .000 MACH = .600  
SCALE = .0300

PARAMETRIC DATA

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA = -8.000  
CA1 = .00875 CLM1 = .00873 CN2 = .00825 CA2 = .02863 CLM2 = .00555 CA3 = .02489 CLM3 = .00092 CA4 = .01051 CLM4 = .00270  
CA1 = .00894 CLM1 = .00891 CN2 = .00609 CA2 = .02790 CLM2 = .00541 CA3 = .00493 CLM3 = .00093 CA4 = .01049 CLM4 = .00267  
CA1 = .00871 CLM1 = .00869 CN2 = .00589 CA2 = .02700 CLM2 = .00524 CA3 = .00453 CLM3 = .00085 CA4 = .00951 CLM4 = .00242  
CA1 = .00891 CLM1 = .00878 CN2 = .00549 CA2 = .02516 CLM2 = .00488 CA3 = .00467 CLM3 = .00088 CA4 = .00924 CLM4 = .00236  
CA1 = .00836 CLM1 = .00694 CN2 = .0057 CA2 = .02552 CLM2 = .00495 CA3 = .00413 CLM3 = .00078 CA4 = .00928 CLM4 = .00236  
GRADIENT = .00002 CLM1 = .00002 CN2 = .00000 CA2 = .00034 CLM2 = .00007 CA3 = .00003 CLM3 = .00001 CA4 = .00016 CLM4 = .00004

(EEED13) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = .000 SPDBRK = 35.000  
LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = .000 ELVN-L = .000  
BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO ELVN-R = .000 MACH = 1.400  
SCALE = .0300

PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA = -4.000  
CA1 = .00956 CLM1 = .00953 CN2 = .00625 CA2 = .02864 CLM2 = .00555 CA3 = .00446 CLM3 = .00084 CA4 = .01029 CLM4 = .00262  
CA1 = .00959 CLM1 = .00956 CN2 = .00633 CA2 = .02900 CLM2 = .00562 CA3 = .00428 CLM3 = .00080 CA4 = .01037 CLM4 = .00264  
CA1 = .00956 CLM1 = .00953 CN2 = .00637 CA2 = .02919 CLM2 = .00566 CA3 = .00419 CLM3 = .00079 CA4 = .01040 CLM4 = .00265  
GRADIENT = .00001 CLM1 = .00001 CN2 = .00002 CA2 = .00007 CLM2 = .00001 CA3 = .00003 CLM3 = .00001 CA4 = .00001 CLM4 = .00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA = -4.000  
CA1 = .00974 CLM1 = .00971 CN2 = .00605 CA2 = .02771 CLM2 = .00537 CA3 = .00415 CLM3 = .00078 CA4 = .01000 CLM4 = .00255  
CA1 = .00951 CLM1 = .00949 CN2 = .00616 CA2 = .02822 CLM2 = .00547 CA3 = .00402 CLM3 = .00076 CA4 = .00978 CLM4 = .00249  
CA1 = .00956 CLM1 = .00964 CN2 = .00633 CA2 = .02899 CLM2 = .00562 CA3 = .00406 CLM3 = .00076 CA4 = .00998 CLM4 = .00254  
GRADIENT = .00001 CLM1 = .00001 CN2 = .00003 CA2 = .00016 CLM2 = .00003 CA3 = .00001 CLM3 = .00000 CA4 = .00000 CLM4 = .00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 1:-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D13) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPCBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MA^H = 1.400

## PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.00379	-.00976	.00611	.02800	-.00543	.00408	.00077	.00977	.00249
.000	.00369	-.00926	.00613	.02808	-.00544	.00401	.00075	.00945	.00241
4.000	.00352	-.00949	.00624	.02860	-.00555	.00398	.00075	.00954	.00243
GRADIENT	-.00003	.00003	.00002	.00008	-.00001	-.00001	-.00000	-.00003	-.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01007	-.01004	.00631	.02893	-.00561	.00438	.00082	.01022	.00260
.000	.00962	-.00960	.00630	.02887	-.00560	.00411	.00077	.00959	.00247
4.000	.00970	-.00957	.00635	.02912	-.00565	.00410	.00077	.00972	.00248
GRADIENT	-.00005	.00005	.00001	.00002	-.00000	-.00003	-.00001	-.00006	-.00002

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01039	-.01035	.00641	.02936	-.00569	.00451	.00085	.01037	.00264
.000	.01001	-.00939	.00647	.02955	-.00575	.00436	.00082	.01019	.00260
4.000	.01023	-.01020	.00683	.03132	-.00607	.00438	.00082	.01033	.00263
GRADIENT	-.00002	.00002	.00005	.00025	-.00005	-.00002	-.00001	-.00000	-.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01079	-.01076	.00647	.02967	-.00575	.00477	.00090	.01095	.00279
.000	.01061	-.01058	.00694	.03182	-.00617	.00472	.00089	.01085	.00277
4.000	.01059	-.01055	.00728	.03336	-.00647	.00462	.00087	.01070	.00273
GRADIENT	-.00001	.00001	.00010	.00046	-.00009	-.00002	-.00000	-.00003	-.00001

OAI48 -140 A/B/C/R FOREBODY INCREMENTS

(EED:4) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA -4.000	.01046	-.01043	.00697	.03194	-.00619	.00481	.00090	.01119	.00285
.000	.01024	-.01021	.00672	.03078	-.00597	.00451	.00085	.01074	.00274
4.000	.01049	-.01047	.00677	.03101	-.00601	.00450	.00085	.01112	.00283
GRADIENT	.00000	-.00000	-.00003	-.00012	.00002	-.00004	-.00001	-.00001	-.00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA -4.000	.01053	-.01050	.00667	.03055	-.00592	.00459	.00086	.01046	.00287
.000	.01018	-.01015	.00670	.03071	-.00596	.00441	.00083	.01043	.00285
4.000	.01045	-.01042	.00689	.03155	-.00612	.00447	.00084	.01082	.00276
GRADIENT	-.00001	.00001	.00003	.00012	-.00002	-.00001	-.00000	.00005	.00001

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA -4.000	.01050	-.01047	.00680	.03118	-.00605	.00454	.00085	.01052	.00288
.000	.01025	-.01023	.00672	.03079	-.00597	.00445	.00084	.01043	.00286
4.000	.01059	-.01057	.00686	.03144	-.00610	.00453	.00085	.01074	.00284
GRADIENT	.00001	-.00001	.00001	.00003	-.00001	-.00000	-.00000	.00003	.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA -4.000	.01117	-.01114	.00693	.03176	-.00616	.00481	.00091	.01121	.00286
.000	.01060	-.01057	.00678	.03108	-.00603	.00457	.00086	.01074	.00284
4.000	.01086	-.01083	.00721	.03306	-.00641	.00467	.00088	.01108	.00282
GRADIENT	-.00004	.00004	.00004	.00016	-.00003	-.00002	-.00000	-.00002	-.00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA -4.000	.01167	-.01164	.00720	.03298	-.00640	.00506	.00096	.01165	.00287
.000	.01109	-.01106	.00714	.03271	-.00634	.00480	.00090	.01125	.00287
4.000	.01132	-.01129	.00734	.03365	-.00652	.00464	.00097	.01115	.00285
GRADIENT	-.00004	.00004	.00002	.00008	-.00002	-.00005	-.00001	-.00005	-.00001

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(EE8015) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

RUDDER = .000  
BOFLAP = .000  
ELVN-R = .000  
MACH = 1.100

PARAMETRIC DATA

RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01150	-.01147	.00755	.03461	-.00671	.00499	.00094	.01124	.00286
.01112	-.01109	.00707	.03241	-.00628	.00482	.00091	.01128	.00287
.01202	-.01199	.00728	.03337	-.00647	.00506	.00095	.01155	.00302
.00007	-.00007	-.00003	-.00016	.00003	.00001	.00000	.00008	.00002

RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01093	-.01090	.00729	.03342	-.00648	.00481	.00091	.01087	.00277
.01075	-.01072	.00700	.03205	-.00622	.00468	.00088	.01105	.00282
.01159	-.01156	.00703	.03222	-.00625	.00498	.00094	.01171	.00298
.00008	-.00008	-.00003	-.00015	.00003	.00002	.00000	.00010	.00003

RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01149	-.01146	.00743	.03405	-.00660	.00507	.00095	.01175	.00300
.01114	-.01111	.00723	.03312	-.00642	.00481	.00091	.01136	.00290
.01186	-.01183	.00722	.03310	-.00642	.00506	.00095	.01204	.00307
.00005	-.00005	-.00003	-.00012	.00002	-.00000	-.00000	.00004	.00001

RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01236	-.01233	.00782	.03585	-.00695	.00553	.00104	.01254	.00320
.01127	-.01124	.00722	.03308	-.00641	.00487	.00092	.01145	.00292
.01197	-.01194	.00767	.03514	-.00681	.00512	.00095	.01211	.00309
.00005	-.00005	-.00002	-.00009	.00002	-.00005	-.00001	-.00005	-.00001

RV/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01221	-.01217	.00800	.03665	-.00711	.00550	.00103	.01226	.00312
.01179	-.01176	.00799	.03660	-.00710	.00514	.00097	.01166	.00297
.01224	-.01221	.00813	.03725	-.00722	.00509	.00095	.01200	.00306
.00000	-.00000	.00002	.00007	-.00001	-.00005	-.00001	-.00003	-.00001

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SCHEA = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .500

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .00792  
 .00750  
 .00740  
 -.00007

CLM1 -.00790  
 -.00748  
 -.00738  
 .00007

CN2 .00488  
 .00473  
 .00518  
 .00004

CA2 .02236  
 .02166  
 .02374  
 .00017

CLM2 -.00434  
 -.00420  
 -.00460  
 -.00003

CA3 .00346  
 .00354  
 .00348  
 .00000

CLM3 .00065  
 .00069  
 .00065  
 .00000

CA4 .00755  
 .00772  
 .00741  
 -.00002

CLM4 .00192  
 .00197  
 .00189  
 -.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .00769  
 .00738  
 .00744  
 -.00003

CLM1 -.00767  
 -.00736  
 -.00742  
 .00003

CN2 .00485  
 .00479  
 .00501  
 .00002

CA2 .02224  
 .02196  
 .02236  
 .00009

CLM2 -.00431  
 -.00426  
 -.00445  
 -.00002

CA3 .00332  
 .00346  
 .00350  
 .00002

CLM3 .00062  
 .00065  
 .00065  
 .00000

CA4 .00751  
 .00746  
 .00703  
 -.00005

CLM4 .00191  
 .00190  
 .00179  
 -.00002

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .00740  
 .00698  
 .00719  
 -.00003

CLM1 -.00739  
 -.00686  
 -.00717  
 .00003

CN2 .00464  
 .00451  
 .00472  
 .00001

CA2 .02128  
 .02066  
 .02164  
 .00005

CLM2 -.00413  
 -.00401  
 -.00420  
 -.00001

CA3 .00321  
 .00316  
 .00328  
 .00001

CLM3 .00060  
 .00060  
 .00062  
 .00000

CA4 .00730  
 .00670  
 .00691  
 -.00001

CLM4 .00186  
 .00171  
 .00175  
 -.00001

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .00735  
 .00690  
 .00693  
 -.00005

CLM1 -.00734  
 -.00688  
 -.00692  
 .00005

CN2 .00455  
 .00469  
 .00459  
 .00000

CA2 .02086  
 .02151  
 .02104  
 .00002

CLM2 -.00405  
 -.00417  
 -.00408  
 -.00000

CA3 .00321  
 .00325  
 .00318  
 -.00000

CLM3 .00060  
 .00061  
 .00060  
 -.00000

CA4 .00733  
 .00683  
 .00688  
 .00001

CLM4 .00174  
 .00166  
 .00175  
 .00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .00741  
 .00721  
 .00749  
 .00001

CLM1 -.00739  
 -.00719  
 -.00747  
 -.00001

CN2 .00459  
 .00482  
 .00499  
 .00004

CA2 .02150  
 .02207  
 .02285  
 .00017

CLM2 -.00417  
 -.00428  
 -.00443  
 -.00003

CA3 .00346  
 .00348  
 .00354  
 .00002

CLM3 .00065  
 .00065  
 .00069  
 .00000

CA4 .00741  
 .00700  
 .00763  
 .00003

CLM4 .00189  
 .00178  
 .00194  
 .00001

DATE 09 MAY 76

TABULATED FORCE DATA - CA148 ( AMES 11-073-1 )

PAGE 431

CA148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8017) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2893.000 SQ.FT. YMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6500 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER = .000 SPDSRK = 35.000  
BDFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = .600

PARAMETRIC DATA

ALPHA = -4.000

BETA

-8.000

-4.000

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PN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CA	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00706	-.00704	.00446	.02042	-.00396	.00353	.00066	.00710	.00181
.00700	-.00698	.00443	.02032	-.00394	.00353	.00066	.00710	.00181
.00675	-.00673	.00430	.01971	-.00392	.00355	.00067	.00713	.00177
.00675	-.00674	.00470	.02154	-.00418	.00354	.00067	.00732	.00186
.00669	-.00657	.00505	.02314	-.00449	.00370	.00070	.00775	.00198
.00603	.00003	.00003	.00015	-.00003	.00000	.00000	.00000	.00001

PN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00705	-.00703	.00444	.02035	-.00395	.00347	.00065	.00704	.00179
.00699	-.00697	.00427	.01957	-.00379	.00344	.00062	.00704	.00179
.00695	-.00693	.00435	.01935	-.00397	.00342	.00064	.00704	.00177
.00679	-.00677	.00509	.02335	-.00453	.00355	.00067	.00704	.00191
.00672	-.00670	.00515	.02329	-.00457	.00355	.00067	.00704	.00196
.00601	.00001	.00010	.00047	-.00009	.00003	.00000	.00004	.00001

PN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00704	-.00702	.00445	.02041	-.00396	.00350	.00069	.00716	.00182
.00691	-.00679	.00428	.01960	-.00390	.00341	.00064	.00704	.00179
.00692	-.00690	.00436	.01936	-.00397	.00327	.00062	.00699	.00163
.00642	-.00641	.00469	.02235	-.00453	.00346	.00066	.00715	.00182
.00660	-.00669	.00492	.02253	-.00437	.00344	.00065	.00749	.00191
.00605	.00005	.00007	.00034	-.00007	.00001	.00000	.00001	.00001

PN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00731	-.00729	.00437	.02004	-.00399	.00373	.00070	.00764	.00182
.00653	-.00652	.00417	.01911	-.00371	.00316	.00060	.00554	.00167
.00626	-.00625	.00432	.01982	-.00384	.00312	.00059	.00516	.00157
.00629	-.00627	.00453	.02078	-.00403	.00319	.00060	.00516	.00170
.00663	-.00661	.00502	.02303	-.00445	.00355	.00067	.00706	.00198
.00602	.00002	.00005	.00021	-.00004	.00000	.00000	.00002	.00000

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(2230170) (23 AUG 75)

## REFERENCE DATA

REF = 2530.000 SQ. FT. XMR = 1075.6900 IN. X0 RIDDER = .000 SDRX = 35.000  
 REF = 474.8000 IN. XMR = .0000 IN. Y0 BDCAP = .000 ELN-R = .000  
 REF = 336.5000 IN. ZMR = 375.0000 IN. Z0 ELN-R = .000 ELN-R = .000  
 SCALE = .0000

## PARAMETER DATA

RM/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

CA1	CLM1	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00715	-.00713	.00418	-.00371	.00364	.00369	.00778	.00398
.00642	-.00640	.00412	-.00365	.00356	.00353	.00562	.00172
.00519	-.00517	.00441	-.00392	.00383	.00381	.00669	.00163
.00406	-.00404	.00459	-.00408	.00399	.00396	.00774	.00154
.00333	-.00331	.00519	-.00461	.00392	.00382	.00812	.00141
.00260	-.00258	.00586	-.00527	.00360	.00350	.00851	.00128

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(2230180) (23 AUG 75)

## REFERENCE DATA

REF = 2530.000 SQ. FT. XMR = 1075.6900 IN. X0 RIDDER = .000 SDRX = .000  
 REF = 474.8000 IN. XMR = .0000 IN. Y0 BDCAP = .000 ELN-R = .000  
 REF = 336.5000 IN. ZMR = 375.0000 IN. Z0 ELN-R = .000 ELN-R = .000  
 SCALE = .0000

## PARAMETER DATA

RM/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

CA1	CLM1	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00922	-.00919	.00625	-.00555	.00432	.00391	.01021	.00391
.00827	-.00825	.00627	-.00557	.00423	.00382	.01022	.00381
.00733	-.00731	.00620	-.00551	.00411	.00373	.01027	.00369
.00638	-.00636	.00603	-.00521	.00393	.00355	.01030	.00353
.00541	-.00539	.00601	-.00500	.00360	.00322	.01033	.00343

ALPHA = 12.000

CA1	CLM1	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00985	-.00983	.00629	-.00557	.00438	.00397	.01091	.00397
.00890	-.00888	.00632	-.00557	.00429	.00387	.01091	.00387
.00795	-.00793	.00625	-.00551	.00419	.00377	.01097	.00377
.00700	-.00698	.00620	-.00544	.00407	.00365	.01100	.00365
.00605	-.00603	.00603	-.00527	.00392	.00348	.01103	.00348



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS 1 (EE8018) ( 23 AUG 75 )

REF: DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
BOFLAP = -11.700 ELVN-L = .000  
ELVN-R = .000 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA -4.000	.00956	-.00954	.00608	.02786	-.00540	.00405	.00075	.00954	.00246
.000	.00928	-.00926	.00598	.02742	-.00532	.00392	.00074	.00930	.00237
4.000	.00940	-.00937	.00621	.02847	-.00552	.00394	.00074	.00954	.00243
GRADIENT	-.00002	.00002	.00002	.00008	-.00001	-.00002	-.00000	-.00001	-.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA -4.000	.00985	-.00982	.00616	.02821	-.00547	.00424	.00080	.00987	.00252
.000	.00937	-.00934	.00606	.02778	-.00539	.00400	.00075	.00948	.00242
4.000	.00954	-.00952	.00637	.02930	-.00566	.00411	.00077	.00995	.00253
GRADIENT	-.00034	.00004	.00003	.00012	-.00002	-.00002	-.00000	.00001	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA -4.000	.00982	-.00979	.00626	.02867	-.00556	.00436	.00082	.00981	.00250
.000	.00973	-.00970	.00646	.02961	-.00574	.00429	.00081	.01011	.00258
4.000	.00937	-.00935	.00671	.03074	-.00596	.00435	.00092	.01038	.00265
GRADIENT	.00002	-.00002	.00006	.00026	-.00005	-.00000	-.00000	.00007	.00002

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA -4.000	.01030	-.01027	.00623	.02855	-.00554	.00457	.00088	.01055	.00269
.000	.01016	-.01013	.00686	.03144	-.00610	.00464	.00087	.01100	.00280
4.000	.01051	-.01048	.00708	.03246	-.00629	.00460	.00087	.01095	.00279
GRADIENT	.00003	-.00003	.00011	.00049	-.00009	-.00001	-.00000	.00005	.00001

DATE 08 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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OA148 -140 A/B/C/R FOREBODY INCREMENTS

EESD19) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.5500 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1	CLM2	CLM3	CLM4
.01070	.00609	.00086	.01067
-.01044	-.00595	.00083	.00272
-.01065	.03140	.00081	.00267
.00001	-.00004	-.00001	.00271
-.00001	.00001	-.00001	-.00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1	CLM2	CLM3	CLM4
.01042	.00596	.00085	.01021
-.01020	-.00575	.00081	.00260
-.01047	.03076	.00082	.00254
.00001	.00000	-.00002	.00267
-.00001	-.00000	-.00003	.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1	CLM2	CLM3	CLM4
.01044	.00592	.00085	.01039
-.01032	-.00583	.00081	.00265
-.01049	.03055	.00084	.00258
.00001	-.00591	.00003	.00271
-.00001	.00000	-.00003	.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 3.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1	CLM2	CLM3	CLM4
.01076	.00602	.00089	.01060
-.01031	-.00592	.00084	.00270
-.01080	.03106	.00087	.00266
.00000	-.00643	.00001	.00282
-.00000	-.00005	-.00000	.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CLM1	CLM2	CLM3	CLM4
.01090	.00606	.00089	.01063
-.01078	-.00624	.00088	.00271
-.01105	.03220	.00088	.00279
.00002	-.00731	.00088	.00285
-.00002	.00029	-.00000	.00002

DATE 08 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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(EE8D20) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

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ALPHA = .000

BETA

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ALPHA = 12.000

BETA

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DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 437

(EE8022) ( 23 AUG 75 )

1

0A148 -140 A/B/C/R FOREBODY INCREMENTS

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00601  
 .00607  
 .00579  
 .00600  
 .00607  
 -.00001

CLM1  
 -.00599  
 -.00506  
 -.00578  
 -.00593  
 -.00606  
 .00001

CN2  
 .00476  
 .00493  
 .00472  
 .00478  
 .00500  
 -.00002

CA2  
 .02180  
 .02260  
 .02165  
 .02190  
 .02290  
 -.00009

CLM2  
 -.00423  
 -.00438  
 -.00420  
 -.00425  
 -.00444  
 .00002

CA3  
 .00351  
 .00344  
 .00336  
 .00339  
 .00353  
 -.00001

CLM3  
 .00066  
 .00065  
 .00063  
 .00064  
 .00066  
 -.00000

CA4  
 .00632  
 .00673  
 .00679  
 .00687  
 .00700  
 .00002

CLM4  
 .00161  
 .00171  
 .00173  
 .00175  
 .00178  
 .00000

RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00593  
 .00567  
 .00583  
 .00519  
 .00626  
 .00004

CLM1  
 -.00591  
 -.00596  
 -.00591  
 -.00517  
 -.00624  
 -.00004

CN2  
 .00463  
 .00474  
 .00460  
 .00474  
 .00485  
 .00000

CA2  
 .02122  
 .02173  
 .02106  
 .02174  
 .02224  
 .00000

CLM2  
 -.00412  
 -.00421  
 -.00408  
 -.00422  
 -.00431  
 -.00000

CA3  
 .00343  
 .00330  
 .00326  
 .00319  
 .00333  
 -.00001

CLM3  
 .00065  
 .00062  
 .00061  
 .00060  
 .00063  
 -.00000

CA4  
 .00632  
 .00638  
 .00628  
 .00650  
 .00683  
 .00003

CLM4  
 .00161  
 .00163  
 .00160  
 .00168  
 .00174  
 .00001

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00582  
 .00599  
 .00601  
 .00590  
 .00595  
 -.00001

CLM1  
 -.00580  
 -.00597  
 -.00600  
 -.00588  
 -.00593  
 .00001

CN2  
 .00453  
 .00478  
 .00448  
 .00455  
 .00477  
 -.00003

CA2  
 .02076  
 .02190  
 .02054  
 .02083  
 .02187  
 -.00013

CLM2  
 -.00402  
 -.00425  
 -.00398  
 -.00404  
 -.00424  
 .00003

CA3  
 .00353  
 .00333  
 .00307  
 .00305  
 .00316  
 -.00004

CLM3  
 .00066  
 .00063  
 .00058  
 .00057  
 .00060  
 -.00001

CA4  
 .00650  
 .00645  
 .00587  
 .00620  
 .00669  
 -.00003

CLM4  
 .00166  
 .00164  
 .00150  
 .00158  
 .00170  
 -.00001

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00589  
 .00571  
 .00598  
 .00599  
 .00602  
 .00002

CLM1  
 -.00588  
 -.00569  
 -.00596  
 -.00597  
 -.00600  
 -.00002

CN2  
 .00466  
 .00446  
 .00429  
 .00460  
 .00484  
 .00002

CA2  
 .02136  
 .02046  
 .01966  
 .02107  
 .02216  
 .00008

CLM2  
 -.00414  
 -.00397  
 -.00381  
 -.00409  
 -.00430  
 -.00001

CA3  
 .00376  
 .00310  
 .00294  
 .00301  
 .00323  
 -.00001

CLM3  
 .00071  
 .00058  
 .00055  
 .00057  
 .00051  
 -.00000

CA4  
 .00672  
 .00606  
 .00589  
 .00608  
 .00691  
 .00000

CLM4  
 .00171  
 .00154  
 .00150  
 .00155  
 .00176  
 .00000

DATE 08 MAY 76

## TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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(EE8D22) ( 23 AUG 75 )

OA148 -140 A/B/C/R FOREBODY INCREMENTS

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = -11.700 ELV:L = .000  
 ELVN-R = .000 MACH = .600

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-9.000

-4.000

.000

4.000

8.000

GRADIENT

CA1 .00553  
 CA2 .02116  
 CA3 .00357  
 CA4 .00699  
 CLM1 -.00552  
 CLM2 -.00410  
 CLM3 .00067  
 CLM4 .00178  
 CN2 .00462  
 CN3 .00320  
 CN4 .00639  
 CM2 .00392  
 CM3 .00060  
 CM4 .00163  
 CM5 .00393  
 CM6 .00056  
 CM7 .00144  
 CM8 .00325  
 CM9 .00059  
 CM10 .00313  
 CM11 .00157  
 CM12 .00444  
 CM13 .00717  
 CM14 .00183  
 CM15 .00003  
 CM16 -.00001

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

OA148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D23) ( 23 AUG 75 )

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .00968  
 CA2 .02908  
 CA3 .00446  
 CA4 .01030  
 CLM1 -.00965  
 CLM2 -.00564  
 CLM3 .00084  
 CLM4 .00262  
 CN2 .00635  
 CN3 .00425  
 CN4 .00264  
 CM2 .00563  
 CM3 .00080  
 CM4 .00264  
 CM5 .00565  
 CM6 .00078  
 CM7 .00264  
 CM8 .00001  
 CM9 -.00004  
 CM10 -.00001

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .00977  
 CA2 .02765  
 CA3 .00417  
 CA4 .00992  
 CLM1 -.00975  
 CLM2 -.00536  
 CLM3 .00079  
 CLM4 .00253  
 CN2 .00603  
 CN3 .00404  
 CN4 .00247  
 CM2 .00549  
 CM3 .00076  
 CM4 .00968  
 CM5 .00554  
 CM6 .00076  
 CM7 .00249  
 CM8 .00002  
 CM9 -.00002  
 CM10 -.00002

DATE 08 MAY 75

TABULATED FORCE DATA - 0A146 ( AMES 11-073-1 )

PAGE 439

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D23) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .00971  
 .00919  
 .00940  
 -.00004  
 GRADIENT

CLM1  
 -.00958  
 -.00917  
 -.00937  
 .00004

CN2  
 .02605  
 .02791  
 .02554  
 .00002

CA2  
 .02772  
 .02791  
 .02554  
 .00010

CA3  
 .00406  
 .00396  
 .00396  
 -.00001

CLM3  
 .00076  
 .00074  
 .00074  
 -.00000

CA4  
 .00969  
 .00942  
 .00943  
 -.00003

CLM4  
 .00247  
 .00240  
 .00240  
 -.00001

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01010  
 .00947  
 .00963  
 -.00006  
 GRADIENT

CLM1  
 -.01008  
 -.00945  
 -.00960  
 .00006

CN2  
 .00626  
 .00624  
 .00633  
 .00001

CA2  
 .02870  
 .02658  
 .02931  
 .00004

CA3  
 .00436  
 .00404  
 .00408  
 -.00004

CLM3  
 .00082  
 .00076  
 .00077  
 -.00001

CA4  
 .01019  
 .00948  
 .00964  
 -.00007

CLM4  
 .00260  
 .00242  
 .00246  
 -.00002

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01042  
 .01000  
 .01019  
 -.00003  
 GRADIENT

CLM1  
 -.01039  
 -.00997  
 -.01016  
 .00003

CN2  
 .00643  
 .00638  
 .00679  
 .00004

CA2  
 .02948  
 .02923  
 .03112  
 .00021

CA3  
 .00449  
 .00429  
 .00434  
 -.00002

CLM3  
 .00085  
 .00081  
 .00082  
 -.00000

CA4  
 .01033  
 .01010  
 .01034  
 .00000

CLM4  
 .00263  
 .00257  
 .00264  
 .00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01070  
 .01071  
 .01063  
 -.00001  
 GRADIENT

CLM1  
 -.01067  
 -.01068  
 -.01060  
 .00001

CN2  
 .00640  
 .00695  
 .00718  
 .00010

CA2  
 .02934  
 .03184  
 .03289  
 .00044

CA3  
 .00474  
 .00474  
 .00458  
 -.00002

CLM3  
 .00089  
 .00089  
 .00086  
 -.00000

CA4  
 .01080  
 .01078  
 .01085  
 .00001

CLM4  
 .00275  
 .00275  
 .00277  
 .00000

DATE 08 MAY 76 TABULATED FORCE DATA - CA148 ( AMES 11-073-1 )

(EEBD24) ( 23 AUG 75 )

CA148 -140 A/B/C/R FOREBODY INCREMENTS

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
LREF = 474.6000 IN. YMRP = .0000 IN. YO  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPCBRK = .000  
BOFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
CA1  
.01039  
.01020  
.01029  
-0.0001  
GRADIENT  
-0.0001  
CLM1  
-0.01036  
-0.01017  
-0.01026  
0.0001  
CN2  
.00687  
.00674  
.00668  
-0.0002  
CA2  
.03148  
.03090  
.03061  
-0.0001  
CLM2  
-0.00610  
-0.00599  
-0.00594  
0.0002  
CA3  
.00467  
.00450  
-0.00400  
-0.0003  
CLM3  
.00088  
.00085  
.00083  
-0.0001  
CA4  
.01092  
.01069  
.01087  
-0.0001  
CLM4  
.00278  
.00273  
.00277  
-0.0000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
CA1  
.01035  
.00992  
.01019  
-0.0002  
GRADIENT  
-0.0002  
CLM1  
-0.01032  
-0.00969  
-0.01016  
0.0002  
CN2  
.00658  
.00657  
.00670  
0.0001  
CA2  
.03017  
.03011  
.03070  
0.0007  
CLM2  
-0.00585  
-0.00584  
-0.00595  
-0.0001  
CA3  
.00446  
.00432  
-0.00434  
-0.0001  
CLM3  
.00084  
.00081  
.00082  
-0.0000  
CA4  
.01043  
.01021  
.01054  
0.0001  
CLM4  
.00266  
.00260  
.00263  
0.0000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
CA1  
.01038  
.01015  
.01028  
-0.0004  
GRADIENT  
-0.0004  
CLM1  
-0.01035  
-0.01012  
-0.01005  
0.0004  
CN2  
.00672  
.00664  
.00660  
-0.0001  
CA2  
.03080  
.03044  
.03027  
-0.0007  
CLM2  
-0.00597  
-0.00590  
-0.00587  
0.0001  
CA3  
.00451  
.00437  
.00433  
-0.0002  
CLM3  
.00085  
.00082  
.00081  
-0.0000  
CA4  
.01038  
.01025  
.01039  
0.0000  
CLM4  
.00264  
.00261  
.00265  
0.0000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
CA1  
.01107  
.01045  
.01072  
-0.0004  
GRADIENT  
-0.0004  
CLM1  
-0.01104  
-0.01042  
-0.01069  
0.0004  
CN2  
.00684  
.00670  
.00709  
0.0003  
CA2  
.03133  
.03073  
.03350  
0.0015  
CLM2  
-0.00608  
-0.00596  
-0.00630  
-0.0003  
CA3  
.00475  
.00443  
.00454  
-0.0003  
CLM3  
.00089  
.00083  
.00085  
-0.0001  
CA4  
.01100  
.01051  
.01084  
-0.0002  
CLM4  
.00260  
.00268  
.00276  
-0.0001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
CA1  
.01139  
.01087  
.01114  
-0.0003  
GRADIENT  
-0.0003  
CLM1  
-0.01136  
-0.01084  
-0.01110  
0.0003  
CN2  
.00711  
.00704  
.00721  
0.0001  
CA2  
.03258  
.03227  
.03303  
0.0006  
CLM2  
-0.00632  
-0.00626  
-0.00641  
-0.0001  
CA3  
.00486  
.00471  
.00453  
-0.0004  
CLM3  
.00091  
.00089  
.00085  
-0.0001  
CA4  
.01137  
.01107  
.01095  
-0.0005  
CLM4  
.00290  
.00282  
.00279  
-0.0001



DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPCBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

## PARAMETRIC DATA

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01150	-.01146	.00743	.03405	-.00660	.00490	.00092	.01116	.00284
.01125	-.01122	.00719	.03297	-.00539	.00486	.00092	.01139	.00290
.01159	-.01156	.00713	.03266	-.00633	.00487	.00092	.01165	.00297
.00001	-.00001	-.00004	-.00017	.00003	-.00000	-.00000	.00006	.00002

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01078	-.01075	.00716	.03383	-.00637	.00459	.00086	.01055	.00269
.01076	-.01073	.00702	.03217	-.00524	.00462	.00087	.01095	.00279
.01105	-.01102	.00680	.03117	-.00604	.00469	.00088	.01121	.00265
.00003	-.00003	-.00005	-.00021	.00004	.00001	.00000	.00008	.00002

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01111	-.01108	.00722	.03311	-.00642	.00483	.00091	.01103	.00281
.01073	-.01070	.00695	.03189	-.00618	.00460	.00087	.01079	.00275
.01117	-.01114	.00696	.03188	-.00618	.00472	.00089	.01133	.00289
.00001	-.00001	-.00003	-.00015	.00003	-.00001	-.00000	.00004	.00001

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01153	-.01150	.00732	.03353	-.00650	.00501	.00094	.01149	.00293
.01103	-.01100	.00716	.03282	-.00636	.00456	.00088	.01114	.00284
.01131	-.01128	.00743	.03403	-.00660	.00480	.00090	.01150	.00293
-.00003	-.00003	.00001	.00006	-.00001	-.00003	-.00001	.00000	.00000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01147	-.01143	.00748	.03426	-.00664	.00508	.00096	.01143	.00291
.01137	-.01134	.00765	.03504	-.00679	.00490	.00092	.01120	.00285
.01176	-.01173	.00776	.03557	-.00690	.00484	.00091	.01147	.00292
.00004	-.00004	.00004	.00016	-.00003	-.00003	-.00001	.00001	.00000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 442

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8026) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 935.6000 IN.  
 SCALE = .0300

XMRP = 1076.6000 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000  
 BDFLAP = .000  
 ELVN-L = .000  
 ELVN-R = .000

ALPHA = 4.000

BETA

4.000

.000

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RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00704	-.00702	.00438	.02009	-.00390	.00308	.00058	.00000	.00168
.00710	-.00708	.00446	.02045	-.00397	.00323	.00061	.00000	.00177
.00575	-.00573	.00456	.02090	-.00405	.00311	.00059	.00000	.00169
-.00004	.00002	.00002	.00010	-.00002	.00000	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00702	-.00700	.00430	.01971	-.00382	.00304	.00057	.00000	.00164
.00559	-.00557	.00407	.01857	-.00362	.00289	.00054	.00000	.00158
.00556	-.00554	.00441	.02022	-.00392	.00305	.00057	.00000	.00152
-.00006	.00006	.00001	.00006	-.00001	.00000	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00558	-.00555	.00422	.01932	-.00375	.00289	.00054	.00000	.00159
.00528	-.00526	.00389	.01783	-.00346	.00274	.00052	.00000	.00150
.00543	-.00541	.00413	.01891	-.00367	.00294	.00055	.00000	.00157
-.00002	.00002	-.00001	-.00005	.00001	.00001	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00611	-.00609	.00412	.01890	-.00367	.00274	.00052	.00000	.00145
.00624	-.00622	.00396	.01813	-.00351	.00293	.00053	.00000	.00150
.00540	-.00538	.00428	.01951	-.00380	.00291	.00055	.00000	.00157
.00004	.00004	.00002	.00009	-.00002	.00002	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00679	-.00677	.00444	.02033	-.00394	.00303	.00057	.00000	.00155
.00653	-.00651	.00445	.02029	-.00393	.00305	.00058	.00000	.00163
.00650	-.00648	.00453	.02077	-.00403	.00322	.00061	.00000	.00177
-.00004	.00004	.00001	.00005	-.00001	.00002	.00000	.00000	.00000

04148 -140 A/B/C/R FOREBODY INCREMENTS I (EE9027) ( 23 AUG 75 )

## REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XMP	=	1076.6900	IN.	XO
LREF	=	474.6000	IN.	YMP	=	0.0000	IN.	YO
BREF	=	936.6600	IN.	ZMP	=	375.0000	IN.	ZO
SCALE	=	.6300						

## PARAMETRIC DATA

RUDDER =	.000	SPDRK =	.000
BOFLAP =	.000	ELVN-L =	.000
ELVN-R =	.000	MACH =	.600

RN/L =	4.85	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-4.000										
	BETA									
-8.000		.00532	-.00631	.00431	.01975	-.00383	.00311	.00059	.00579	.00148
-4.000		.00609	-.00508	.00710	.01880	-.00365	.00316	.00059	.00559	.00150
	.000	.00533	-.00532	.00404	.01851	-.00359	.00323	.00061	.00527	.00160
4.000		.00605	-.00504	.00427	.01955	-.00379	.00323	.00061	.00665	.00170
8.000		.00601	-.00593	.00456	.02092	-.00406	.00335	.00053	.00718	.00183
GRADIENT		-.00000	.00000	.00002	.00009	-.00002	.00001	.00000	.00010	.00002

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.000										
BETA										
-8.000		.06637	-.06636	.00412	.01890	-.00365	.00314	.00059	.00500	.00153
-4.000		.06519	-.06617	.00410	.01880	-.00355	.00312	.00059	.00585	.00149
.000		.06604	-.06602	.00413	.01894	-.00367	.00309	.00058	.00585	.00155
4.000		.06605	-.06603	.00430	.01971	-.00382	.00305	.00059	.00639	.00163
8.000		.06508	-.06607	.00454	.02126	-.00412	.00324	.00051	.00701	.00179
GRADIENT		-.00002	.00002	.00002	.00011	-.00002	-.00001	-.00000	.00007	.00002

$RN/L = 4.84$ 
 $GRADIENT\ INTERVAL = -5.00/5.00$

ALPHA	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
4.000	-8.000	-0.0651	-0.0649	-0.0408	-0.1868	-0.0352	-0.0316	-0.0359	-0.0600	-0.0153
	-4.000	-0.0515	-0.0614	-0.0405	-0.1858	-0.0360	-0.0304	-0.0057	-0.0555	-0.0144
	.000	-0.0588	-0.0586	-0.0385	-0.1763	-0.0342	-0.0297	-0.0056	-0.0572	-0.0146
	4.000	-0.0599	-0.0597	-0.0420	-0.1925	-0.0373	-0.0238	-0.0055	-0.0511	-0.0156
	8.000	-0.0623	-0.0622	-0.0455	-0.2084	-0.0404	-0.0206	-0.0058	-0.0468	-0.0168
GRADIENT		-0.0003	-0.0003	-0.0002	-0.0008	-0.0002	-0.0001	-0.0000	-0.0005	-0.0001

RM/L = 4.84	GRADIENT INTERVAL = -5.00/ 5.00
-------------	---------------------------------

[illegible]

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 444

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EEB229) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-8.000	.00620	.00389	.01781	.00345	.00315	.00059	.00058	.00168	
-4.000	.00570	.00386	.01767	.00343	.00301	.00057	.00539	.00137	
.000	.00569	.00400	.01832	.00355	.00288	.00055	.00533	.00136	
4.000	.00555	.00403	.01846	.00359	.00300	.00057	.00639	.00163	
8.000	.00559	.00431	.01973	.00383	.00316	.00059	.00655	.00175	
GRADIENT	.00002	.00002	.00010	.00002	.00000	.00000	.00012	.00003	

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EEB229) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-4.000	.01015	.01013	.00650	.03025	.00587	.00454	.00085	.01084	.00276
.000	.00992	.00990	.00655	.03003	.00592	.00441	.00083	.01256	.00269
4.000	.01010	.01007	.00649	.02975	.00577	.00436	.00082	.01040	.00265
GRADIENT	.00001	.00001	.00001	.00006	.00001	.00002	.00000	.00006	.00001

ALPHA = .000

BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-4.000	.00993	.00990	.00674	.03088	.00599	.00430	.00081	.01049	.00267
.000	.00999	.00996	.00679	.03110	.00603	.00423	.00080	.01041	.00265
4.000	.01012	.01010	.00684	.03133	.00607	.00427	.00080	.01050	.00268
GRADIENT	.00002	.00002	.00001	.00006	.00001	.00000	.00000	.00000	.00000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 445

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D28) ( 23 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

CRCP = 2690.0000 SQ. FT. XW22 = 1076.6800 IN. X0  
 LREF = 4.5000 IN. YMRP = .0000 IN. Y0  
 BREF = 6.6900 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0330

RUDDER = -10.000 SPCBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.400

RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CLM1	CLM2	CLM3	CLM4
BETA				
-4.000	CA1	CA2	CA3	CA4
.000	.01005	.00585	.00426	.01043
4.000	.01000	.00592	.00475	.01059
GRADIENT	.01031	.00677	.00424	.01035
	.00003	.00001	.00000	.00001

RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CLM1	CLM2	CLM3	CLM4
BETA				
-4.000	CA1	CA2	CA3	CA4
.000	.01031	.00697	.00456	.01059
4.000	.01015	.00689	.00442	.01039
GRADIENT	.01050	.00654	.00441	.01050
	.00002	.00004	.00002	.00001

RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CLM1	CLM2	CLM3	CLM4
BETA				
-4.000	CA1	CA2	CA3	CA4
.000	.01063	.00715	.00470	.01099
4.000	.01073	.00696	.00452	.01059
GRADIENT	.01104	.00656	.00455	.01099
	.00905	.00006	.00002	.00003

RV/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CLM1	CLM2	CLM3	CLM4
BETA				
-4.000	CA1	CA2	CA3	CA4
.000	.01099	.00710	.00495	.01151
4.000	.01116	.00695	.00468	.01125
GRADIENT	.01102	.00698	.00472	.01114
	.00000	.00003	.00002	.00001

DATE 08 MAY 76

## TABULATED FORCE DATA - 04148 (AMES 11-C73-1)

PAGE 448

04148 -140 A/B/C/R FOREBODY INCREMENTS

55 10 75

## REFERENCE DATA

REF = 2630.0000 90 FT.  
 REF = 77.8000 IN  
 REF = 938.8900 IN  
 SCALE = .0300

## PARAMETER DATA

REF = 1076.6500 IN. X0  
 REF = .0000 IN. Y0  
 REF = 375.0000 IN. Z0  
 SCALE = 1.0000  
 SCALE = 1.0000  
 SCALE = 1.0000

P.V.L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

CA1  
 .0107  
 .0109  
 .0110  
 .0111  
 .0112

CLM1  
 -.01104  
 -.01093  
 -.01082  
 -.01071  
 -.01060

CM2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CA2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CLM2  
 -.00569  
 -.00569  
 -.00569  
 -.00569  
 -.00569

CA3  
 .00432  
 .00432  
 .00432  
 .00432  
 .00432

CM3  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CA4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CM4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

P.V.L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

CA1  
 .0107  
 .0109  
 .0110  
 .0111  
 .0112

CLM1  
 -.01104  
 -.01093  
 -.01082  
 -.01071  
 -.01060

CM2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CA2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CLM2  
 -.00569  
 -.00569  
 -.00569  
 -.00569  
 -.00569

CA3  
 .00432  
 .00432  
 .00432  
 .00432  
 .00432

CM3  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CA4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CM4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

P.V.L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

CA1  
 .0107  
 .0109  
 .0110  
 .0111  
 .0112

CLM1  
 -.01104  
 -.01093  
 -.01082  
 -.01071  
 -.01060

CM2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CA2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CLM2  
 -.00569  
 -.00569  
 -.00569  
 -.00569  
 -.00569

CA3  
 .00432  
 .00432  
 .00432  
 .00432  
 .00432

CM3  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CA4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CM4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

P.V.L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

CA1  
 .0107  
 .0109  
 .0110  
 .0111  
 .0112

CLM1  
 -.01104  
 -.01093  
 -.01082  
 -.01071  
 -.01060

CM2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CA2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CLM2  
 -.00569  
 -.00569  
 -.00569  
 -.00569  
 -.00569

CA3  
 .00432  
 .00432  
 .00432  
 .00432  
 .00432

CM3  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CA4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CM4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

P.V.L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

CA1  
 .0107  
 .0109  
 .0110  
 .0111  
 .0112

CLM1  
 -.01104  
 -.01093  
 -.01082  
 -.01071  
 -.01060

CM2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CA2  
 .03450  
 .03450  
 .03450  
 .03450  
 .03450

CLM2  
 -.00569  
 -.00569  
 -.00569  
 -.00569  
 -.00569

CA3  
 .00432  
 .00432  
 .00432  
 .00432  
 .00432

CM3  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CA4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CM4  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 447  
(EEB030) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 935.5000 IN.  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000  
BDFLAP = 16.300  
ELVN-R = .000  
SPDBRK = 35.000  
ELVN-L = 10.000  
MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01236	-.01233	.00831	.03809	-.00739	.00545	.00103	.01238	.00315
.01252	-.01249	.00836	.03831	-.00743	.00530	.00100	.01245	.00317
.01277	-.01273	.00836	.03932	-.00743	.00529	.00100	.01278	.00326
.00005	-.00005	.00001	.00003	-.00001	-.00002	-.00000	.00005	.00001

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01225	-.01221	.00826	.03785	-.00734	.00536	.00101	.01217	.00310
.01233	-.01230	.00829	.03800	-.00737	.00531	.00100	.01213	.00309
.01247	-.01243	.00832	.03812	-.00739	.00527	.00099	.01235	.00315
.00003	-.00003	.00001	.00003	-.00001	-.00001	-.00000	.00002	.00001

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01245	-.01242	.00832	.03813	-.00739	.00545	.00103	.01234	.00314
.01242	-.01239	.00836	.03833	-.00743	.00537	.00101	.01248	.00318
.01263	-.01260	.00836	.03830	-.00743	.00539	.00101	.01261	.00321
.00002	-.00002	.00000	.00002	-.00000	-.00001	-.00000	.00003	.00001

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01326	-.01322	.00897	.04066	-.00788	.00590	.00111	.01338	.00341
.01312	-.01308	.00879	.04028	-.00781	.00565	.00106	.01319	.00336
.01330	-.01326	.00855	.03920	-.00760	.00550	.00103	.01322	.00337
.00000	-.00000	-.00004	-.00018	.00004	-.00005	-.00001	-.00002	-.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01357	-.01353	.00886	.04060	-.00787	.00503	.00113	.01352	.00344
.01320	-.01316	.00864	.03960	-.00769	.00573	.00108	.01329	.00339
.01374	-.01371	.00853	.03957	-.00767	.00550	.00103	.01351	.00344
.00002	-.00002	-.00003	-.00013	.00002	.00007	-.00001	-.00000	-.00000





DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 449

0A148 -140 A/B/C/R FOREBODY INCREMENTS 1 (EE8032) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPCBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .600

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00748  
 .00763  
 .00769  
 .00759  
 .00768  
 -.00000  
 GRADIENT

CLM1  
 -.00746  
 -.00761  
 -.00765  
 -.00757  
 -.00786  
 .00000  
 GRADIENT

CN2  
 .00430  
 .00432  
 .00501  
 .00520  
 .00528  
 .00011  
 GRADIENT

CA2  
 .01972  
 .01980  
 .02297  
 .02384  
 .02421  
 .00051  
 GRADIENT

CLM2  
 -.00382  
 -.00384  
 -.00445  
 -.00462  
 -.00469  
 -.00010  
 GRADIENT

CA3  
 .00397  
 .00381  
 .00373  
 .00348  
 .00348  
 -.00004  
 GRADIENT

CLM3  
 .00075  
 .00072  
 .00070  
 .00055  
 .00055  
 -.00001  
 GRADIENT

CA4  
 .00747  
 .00793  
 .00780  
 .00760  
 .00315  
 -.00004  
 GRADIENT

CLM4  
 .00190  
 .00202  
 .00199  
 .00194  
 .00208  
 -.00001  
 GRADIENT

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00731  
 .00739  
 .00759  
 .00793  
 .00816  
 .00007  
 GRADIENT

CLM1  
 -.00729  
 -.00737  
 -.00756  
 -.00790  
 -.00814  
 -.00007  
 GRADIENT

CN2  
 .00433  
 .00479  
 .00539  
 .00561  
 .00563  
 .00010  
 GRADIENT

CA2  
 .01983  
 .02193  
 .02471  
 .02573  
 .02579  
 .00047  
 GRADIENT

CLM2  
 -.00384  
 -.00425  
 -.00475  
 -.00473  
 -.00500  
 -.00009  
 GRADIENT

CA3  
 .00390  
 .00380  
 .00355  
 .00355  
 .00370  
 -.00003  
 GRADIENT

CLM3  
 .00073  
 .00072  
 .00067  
 .00067  
 .00070  
 -.00001  
 GRADIENT

CA4  
 .00788  
 .00777  
 .00726  
 .00735  
 .00795  
 -.00005  
 GRADIENT

CLM4  
 .00201  
 .00198  
 .00185  
 .00187  
 .00203  
 -.00001  
 GRADIENT

ALPHA = 4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00736  
 .00742  
 .00754  
 .00815  
 .00832  
 .00009  
 GRADIENT

CLM1  
 -.00734  
 -.00740  
 -.00752  
 -.00812  
 -.00830  
 -.00009  
 GRADIENT

CN2  
 .00493  
 .00530  
 .00534  
 .00564  
 .00578  
 .00004  
 GRADIENT

CA2  
 .02258  
 .02427  
 .02448  
 .02584  
 .02651  
 .00020  
 GRADIENT

CLM2  
 -.00438  
 -.00471  
 -.00475  
 -.00501  
 -.00514  
 -.00004  
 GRADIENT

CA3  
 .00385  
 .00350  
 .00343  
 .00359  
 .00372  
 .00001  
 GRADIENT

CLM3  
 .00073  
 .00066  
 .00065  
 .00068  
 .00070  
 .00000  
 GRADIENT

CA4  
 .00812  
 .00715  
 .00656  
 .00744  
 .00809  
 .00004  
 GRADIENT

CLM4  
 .00207  
 .00182  
 .00167  
 .00190  
 .00206  
 .00001  
 GRADIENT

ALPHA = 8.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00742  
 .00726  
 .00734  
 .00810  
 .00829  
 .00011  
 GRADIENT

CLM1  
 -.00739  
 -.00724  
 -.00732  
 -.00807  
 -.00827  
 -.00010  
 GRADIENT

CN2  
 .00526  
 .00493  
 .00512  
 .00557  
 .00594  
 .00608  
 GRADIENT

CA2  
 .02411  
 .02258  
 .02347  
 .02551  
 .02722  
 .00037  
 GRADIENT

CLM2  
 -.00468  
 -.00438  
 -.00455  
 -.00435  
 -.00528  
 -.00007  
 GRADIENT

CA3  
 .00392  
 .00336  
 .00328  
 .00368  
 .00370  
 .00004  
 GRADIENT

CLM3  
 .00074  
 .00063  
 .00059  
 .00059  
 .00070  
 .00001  
 GRADIENT

CA4  
 .00828  
 .00605  
 .00651  
 .00698  
 .00830  
 .00012  
 GRADIENT

CLM4  
 .00211  
 .00154  
 .00166  
 .00178  
 .00212  
 .00003  
 GRADIENT

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 450

0A148 -140 A/B/C/R FOREBODY INCREMENTS (EE8032) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

CA1 .00710  
 CA2 .02450  
 CA3 .00404  
 CA4 .00864  
 CLM1 -.00708  
 CLM2 -.00475  
 CLM3 .00076  
 CLM4 .00220  
 CN2 .00535  
 CN3 .00350  
 CN4 .00628  
 CN5 .00532  
 CN6 .00161  
 CN7 .00561  
 CN8 .00169  
 CN9 .00203  
 CN10 .00001

GRADIENT

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8033) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

CA1 .00979  
 CA2 .03045  
 CA3 .00459  
 CA4 .01059  
 CLM1 -.00976  
 CLM2 -.00590  
 CLM3 .00086  
 CLM4 .00270  
 CN2 .00664  
 CN3 .00443  
 CN4 .00581  
 CN5 .00450  
 CN6 .00268  
 CN7 .00273  
 CN8 .00000

GRADIENT

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

CA1 .01004  
 CA2 .02928  
 CA3 .00418  
 CA4 .01044  
 CLM1 -.01001  
 CLM2 -.00568  
 CLM3 .00083  
 CLM4 .00266  
 CN2 .00639  
 CN3 .00444  
 CN4 .00555  
 CN5 .00419  
 CN6 .00262  
 CN7 .00252  
 CN8 .00001

GRADIENT

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .600

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.400

CA1 .00979  
 CA2 .03045  
 CA3 .00459  
 CA4 .01059  
 CLM1 -.00976  
 CLM2 -.00590  
 CLM3 .00086  
 CLM4 .00270  
 CN2 .00664  
 CN3 .00443  
 CN4 .00581  
 CN5 .00450  
 CN6 .00268  
 CN7 .00273  
 CN8 .00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS I I (EE8D33) ( 23 AUG 75 )

## REFERENCE DATA

[illegible]

### PARAMETRIC DATA

RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA =	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
+.000									
BETA									
-4.000	.01035	-.01032	.00651	.02983	-.00578	.00442	.00083	.01029	-.00262
.000	.00982	-.00980	.00622	.02851	-.00553	.00417	.00078	.00979	-.00250
4.000	.00991	-.00988	.00622	.02849	-.00552	.00409	.00077	.01000	-.00255
GRADIENT	-.00005	.00005	-.00004	-.00017	.00003	-.00004	-.00001	-.00004	-.00001

RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

[illegible]

RV/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA =	12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA										
-4.000	.01064	-.01061	.00724	.03316	-.00643	.00474	.00089	.01112		
.000	.01037	-.01034	.00698	.03199	-.00620	.00452	.00085	.01038		
4.000	.01066	-.01063	.00706	.03237	-.00628	.00446	.00084	.01034		
GRADIENT	.00000	-.00000	-.00002	-.00010	.00002	-.00003	-.00001	-.00010		

RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]



DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(EE8035) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

0A148 -140 A/B/C/R FOREBODY INCREMENTS

1

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = 1.100

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01246  
 .01233  
 .01232  
 -.00002  
 CLM1  
 -.01243  
 -.01229  
 -.01228  
 .00002  
 CN2  
 .00803  
 .00786  
 .00777  
 -.00003  
 CA2  
 .03680  
 .03604  
 .03561  
 -.00015  
 CLM2  
 -.00714  
 -.00699  
 -.00691  
 .00003  
 CA3  
 .00549  
 .00535  
 .00535  
 -.00002  
 CLM3  
 .00103  
 .00101  
 .00101  
 -.00000  
 CA4  
 .01263  
 .01267  
 .01263  
 -.00000  
 CLM4  
 .00322  
 .00323  
 .00322  
 -.00000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01249  
 .01213  
 .01207  
 -.00005  
 CLM1  
 -.01246  
 -.01209  
 -.01204  
 .00005  
 CN2  
 .00798  
 .00788  
 .00750  
 -.00006  
 CA2  
 .03650  
 .03609  
 .03439  
 -.00027  
 CLM2  
 -.00709  
 -.00700  
 -.00667  
 .00005  
 CA3  
 .00550  
 .00528  
 .00520  
 -.00004  
 CLM3  
 .00103  
 .00099  
 .00098  
 -.00001  
 CA4  
 .01276  
 .01230  
 .01230  
 -.00006  
 CLM4  
 .00325  
 .00313  
 .00313  
 -.00001

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01267  
 .01233  
 .01239  
 -.00004  
 CLM1  
 -.01264  
 -.01229  
 -.01235  
 .00004  
 CN2  
 .00830  
 .00817  
 .00802  
 -.00004  
 CA2  
 .03802  
 .03745  
 .03673  
 -.00016  
 CLM2  
 -.00737  
 -.00726  
 -.00712  
 .00003  
 CA3  
 .00563  
 .00533  
 .00535  
 -.00004  
 CLM3  
 .00106  
 .00100  
 .00101  
 -.00001  
 CA4  
 .01319  
 .01247  
 .01254  
 -.00008  
 CLM4  
 .00336  
 .00318  
 .00320  
 -.00002

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01308  
 .01270  
 .01303  
 -.00001  
 CLM1  
 -.01304  
 -.01266  
 -.01299  
 .00001  
 CN2  
 .00886  
 .00845  
 .00853  
 -.00004  
 CA2  
 .04062  
 .03873  
 .03910  
 -.00019  
 CLM2  
 -.00788  
 -.00751  
 -.00758  
 .00004  
 CA3  
 .00594  
 .00553  
 .00560  
 -.00004  
 CLM3  
 .00112  
 .00104  
 .00105  
 -.00001  
 CA4  
 .01387  
 .01289  
 .01308  
 -.00010  
 CLM4  
 .00353  
 .00328  
 .00333  
 -.00003

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01379  
 .01285  
 .01321  
 -.00007  
 CLM1  
 -.01375  
 -.01281  
 -.01317  
 .00007  
 CN2  
 .00917  
 .00872  
 .00850  
 -.00008  
 CA2  
 .04201  
 .03986  
 .03894  
 -.00038  
 CLM2  
 -.00815  
 -.00775  
 -.00755  
 .00007  
 CA3  
 .00503  
 .00569  
 .00561  
 -.00005  
 CLM3  
 .00113  
 .00107  
 .00106  
 -.00001  
 CA4  
 .01431  
 .01316  
 .01291  
 -.00018  
 CLM4  
 .00365  
 .00335  
 .00329  
 -.00004

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8036) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00934	-.00932	.00598	.02742	-.00532	.00449	.00085	.00975	.00248
.00913	-.00911	.00594	.02679	-.00519	.00438	.00082	.00955	.00243
.00877	-.00874	.00597	.02738	-.00531	.00407	.00077	.00885	.00226
-.00007	.00007	-.00000	-.00000	.00000	-.00005	-.00001	-.00011	-.00003

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00939	-.00936	.00597	.02737	-.00531	.00439	.00083	.00991	.00253
.00876	-.00873	.00543	.02488	-.00482	.00405	.00076	.00917	.00234
.00871	-.00869	.00562	.02574	-.00499	.00396	.00075	.00908	.00231
-.00009	.00008	-.00004	-.00020	.00004	-.00005	-.00001	-.00010	-.00003

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00935	-.00932	.00599	.02744	-.00532	.00428	.00081	.00969	.00247
.00863	-.00861	.00531	.02432	-.00472	.00400	.00075	.00892	.00227
.00847	-.00845	.00495	.02273	-.00441	.00384	.00072	.00876	.00223
-.00011	.00011	-.00013	-.00059	.00011	-.00006	-.00001	-.00012	-.00003

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00923	-.00920	.00578	.02647	-.00513	.00430	.00081	.00973	.00248
.00866	-.00863	.00527	.02417	-.00469	.00386	.00073	.00900	.00229
.00804	-.00799	.00466	.02226	-.00432	.00378	.00071	.00866	.00210
-.00015	.00015	-.00011	-.00033	.00010	-.00007	-.00001	-.00018	-.00005

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00903	-.00901	.00615	.02818	-.00546	.00440	.00083	.00984	.00251
.00954	-.00951	.00570	.02611	-.00506	.00402	.00076	.00907	.00231
.00931	-.00929	.00566	.02593	-.00503	.00411	.00077	.00909	.00232
-.00009	.00009	-.00006	-.00028	.00005	-.00004	-.00001	-.00003	-.00002

(EE8D37) ( 23 AUG 75 )

0A148 -140 A/B/C/R FOREBODY INCREMENTS

1

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0 RUDDER = 10.000 SPOBRK = 35.000  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0 BOFLAP = 16.300 ELVN-L = .000  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 ELVN-R = 10.000 MACH = .600  
SCALE = .0300

PARAMETRIC DATA

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00807	-.00805	.00518	.02374	-.00460	.00448	.00084	.00857	.00221
-8.000	.00777	-.00775	.00500	.02291	-.00444	.00415	.00078	.00856	.00218
-4.000	.00761	-.00759	.00525	.02407	-.00467	.00396	.00074	.00838	.00213
.000	.00742	-.00740	.00539	.02470	-.00475	.00390	.00073	.00823	.00210
4.000	.00742	-.00740	.00538	.02464	-.00478	.00381	.00072	.00805	.00205
8.000	.00740	-.00740	.00538	.00022	-.00478	.00381	.00072	.00805	.00205
GRADIENT	-.00004	.00005	.00005	.00022	-.00004	-.00003	-.00001	-.00004	-.00001

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00844	-.00842	.00512	.02347	-.00455	.00444	.00083	.00871	.00222
-8.000	.00811	-.00809	.00476	.02182	-.00423	.00413	.00078	.00849	.00216
-4.000	.00761	-.00759	.00495	.02271	-.00440	.00387	.00073	.00830	.00212
.000	.00727	-.00727	.00524	.02401	-.00466	.00370	.00070	.00803	.00205
4.000	.00728	-.00725	.00529	.02422	-.00470	.00371	.00070	.00791	.00202
8.000	.00728	-.00725	.00529	.00027	-.00470	.00371	.00070	.00791	.00202
GRADIENT	-.00010	.00010	.00006	.00027	-.00005	-.00005	-.00001	-.00006	-.00001

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00834	-.00832	.00511	.02343	-.00454	.00435	.00082	.00879	.00224
-8.000	.00800	-.00798	.00475	.02177	-.00422	.00410	.00077	.00854	.00218
-4.000	.00734	-.00732	.00490	.02246	-.00435	.00373	.00073	.00833	.00212
.000	.00713	-.00711	.00482	.02210	-.00429	.00362	.00068	.00818	.00208
4.000	.00739	-.00737	.00480	.02199	-.00426	.00349	.00065	.00754	.00192
8.000	.00739	-.00737	.00480	.00004	-.00426	.00349	.00065	.00754	.00192
GRADIENT	-.00011	.00011	.00001	.00004	-.00001	-.00006	-.00001	-.00005	-.00001

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00842	-.00839	.00509	.02331	-.00452	.00451	.00085	.00895	.00228
-8.000	.00773	-.00770	.00515	.02359	-.00457	.00415	.00078	.00879	.00224
-4.000	.00727	-.00725	.00493	.02245	-.00435	.00356	.00067	.00781	.00199
.000	.00711	-.00709	.00463	.02124	-.00412	.00354	.00067	.00759	.00203
4.000	.00739	-.00739	.00479	.02196	-.00426	.00356	.00067	.00735	.00187
8.000	.00740	-.00739	.00479	.00029	-.00426	.00356	.00067	.00735	.00187
GRADIENT	-.00008	.00008	-.00005	-.00029	.00006	-.00008	-.00001	-.00030	-.00003

DATE 06 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8037) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = 10.000 SPDRK = 35.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = .600  
 SCALE = .0300

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-8.000	.00759	-.00756	.00346	.02500	-.00488	.00423	.00080	.00927	.00235
-4.000	.00723	-.00721	.00503	.02304	-.00447	.00411	.00077	.00859	.00219
.000	.00722	-.00720	.00470	.02154	-.00418	.00360	.00058	.00814	.00207
4.000	.00707	-.00705	.00457	.02095	-.00406	.00378	.00071	.00812	.00207
8.000	.00718	-.00716	.00457	.02096	-.00406	.00344	.00065	.00723	.00186
GRADIENT	.00002	.00002	.00006	-.00026	.00005	-.00004	-.00001	-.00006	-.00002

0A149 -140 A/B/C/R FOREBODY INCREMENTS

(EE8038) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = 10.000 SPDRK = 35.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = .600  
 SCALE = .0300

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-4.000	.00951	-.00946	.00620	.02841	-.00551	.00456	.00086	.01104	.00281
-4.000	.00954	-.00951	.00632	.02899	-.00558	.00452	.00085	.01109	.00283
.000	.00980	-.00977	.00652	.02889	-.00580	.00453	.00085	.01101	.00280
4.000	.00904	-.00904	.00604	.00018	-.00004	-.00000	-.00000	-.00000	-.00000

ALPHA = .000

BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.000	.00973	-.00970	.00653	.02992	-.00580	.00457	.00086	.01090	.00278
.000	.00959	-.00957	.00649	.02974	-.00577	.00428	.00081	.01045	.00266
4.000	.00980	-.00978	.00659	.03064	-.00594	.00433	.00081	.01059	.00279
GRADIENT	.00001	-.00001	.00002	.00009	-.00002	-.00003	-.00001	-.00004	-.00001



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8038) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPOBRK = 65.000  
 BDFLAP = 16.300 CLVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	-4.000	.01012	-.01009	.00670	.03070	-.00595	.00456	.00086	.01063	.00271
GRADIENT	4.000	-.00919	-.00956	.00654	.02936	-.00581	.00436	.00082	.01011	.00258
		.01000	-.01004	.00665	.03047	-.00591	.00428	.00081	.01026	.00261
		-.00001	.00001	-.00001	-.00003	.00001	-.00003	-.00001	-.00005	-.00001

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	-4.000	.01038	-.01035	.00592	.03171	-.00615	.00454	.00085	.01063	.00271
GRADIENT	4.000	.00997	-.00994	.00681	.03122	-.00605	.00448	.00084	.01036	.00264
		.01051	-.01048	.00668	.03061	-.00594	.00445	.00084	.01035	.00264
		.00002	-.00002	-.00003	-.00014	.00003	-.00001	-.00000	-.00004	-.00001

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA	CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	-4.000	.01045	-.01042	.00710	.03254	-.00631	.00461	.00087	.01113	.00284
GRADIENT	4.000	.01041	-.01039	.00708	.03243	-.00629	.00460	.00087	.01074	.00274
		.01096	-.01093	.00679	.03112	-.00603	.00465	.00087	.01080	.00275
		.00005	-.00005	-.00004	-.00018	.00003	.00000	.00000	-.00004	-.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	BETA	CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	-4.000	.01031	-.01028	.00714	.03271	-.00634	.00471	.00089	.01145	.00292
GRADIENT	4.000	.01059	-.01055	.00697	.03193	-.00619	.00466	.00088	.01127	.00287
		.01108	-.01105	.00681	.03122	-.00605	.00478	.00090	.01123	.00286
		.00010	-.00010	-.00004	-.00019	.00004	.00001	.00000	-.00003	-.00001

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8033) 1 23 AUG 75

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPDRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .01097  
 .01053  
 .01059  
 .00000

CLM1  
 -.01094  
 -.01050  
 -.01055  
 -.00000

CN2  
 .00729  
 .00708  
 .00709  
 -.00003

CA2  
 .03443  
 .03247  
 .03250  
 -.00012

CLM2  
 -.00648  
 -.00630  
 -.00630  
 .00002

CA3  
 .00505  
 .00490  
 .00508  
 .00000

CLM3  
 .00095  
 .00092  
 .00096  
 .00000

CA4  
 .01233  
 .01177  
 .01200  
 -.00004

CLM4  
 .00314  
 .00300  
 .00306  
 -.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .01094  
 .01055  
 .01059  
 .00001

CLM1  
 -.01090  
 -.01052  
 -.01055  
 -.00001

CN2  
 .00718  
 .00717  
 .00735  
 .00002

CA2  
 .03251  
 .03287  
 .03371  
 .00010

CLM2  
 -.00638  
 -.00637  
 -.00654  
 -.00002

CA3  
 .00502  
 .00490  
 .00498  
 .00000

CLM3  
 .00094  
 .00092  
 .00094  
 -.00000

CA4  
 .01154  
 .01099  
 .01159  
 -.00001

CLM4  
 .00297  
 .00280  
 .00295  
 -.00000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .01117  
 .01120  
 .01136  
 .00002

CLM1  
 -.01114  
 -.01117  
 -.01133  
 -.00002

CN2  
 .00761  
 .00757  
 .00770  
 .00001

CA2  
 .03488  
 .03468  
 .03528  
 .00005

CLM2  
 -.00676  
 -.00672  
 -.00694  
 -.00001

CA3  
 .00522  
 .00510  
 .00511  
 -.00001

CLM3  
 .00098  
 .00096  
 .00096  
 -.00000

CA4  
 .01190  
 .01165  
 .01162  
 -.00003

CLM4  
 .00303  
 .00297  
 .00296  
 -.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .01183  
 .01170  
 .01221  
 .00005

CLM1  
 -.01180  
 -.01167  
 -.01217  
 -.00005

CN2  
 .00800  
 .00811  
 .00799  
 -.00000

CA2  
 .03666  
 .03719  
 .03661  
 -.00001

CLM2  
 -.00711  
 -.00721  
 -.00710  
 .00000

CA3  
 .00531  
 .00534  
 .00534  
 .00000

CLM3  
 .00100  
 .00101  
 .00100  
 .00000

CA4  
 .01226  
 .01205  
 .01200  
 -.00003

CLM4  
 .00312  
 .00307  
 .00306  
 -.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA1 .01226  
 .01222  
 .01237  
 .00001

CLM1  
 -.01222  
 -.01218  
 -.01233  
 -.00001

CN2  
 .00812  
 .00805  
 .00802  
 -.00002

CA2  
 .03760  
 .03828  
 .03876  
 -.00011

CLM2  
 -.00729  
 -.0072  
 -.00713  
 .00002

CA3  
 .00540  
 .00550  
 .00541  
 .00000

CLM3  
 .00102  
 .00103  
 .00102  
 .00000

CA4  
 .01259  
 .01247  
 .01247  
 -.00002

CLM4  
 .00321  
 .00316  
 .00316  
 -.00000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A14E ( AMES 11-073-1 )

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0A14-B -140 A/B/C/R FOREBODY INCREMENTS

(EE8040) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6900 IN. XO RUDDER = 10.000 SPOBRK = 85.000  
 LREF = 474.8000 IN. YMRP = 0000 IN. YO BOFLAP = 16.300 ELVN-L = 10.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = 1.100  
 SCALE = .0300

## PARAMETRIC DATA

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA										
-4.000		.01277	-.01273	.00853	.03909	-.00758	.00558	.00107	.01335	.00340
.000		.01246	-.01243	.00826	.03769	-.00734	.00575	.00108	.01346	.00342
4.000		.01226	-.01222	.00842	.03650	-.00749	.00593	.00110	.01344	.00343
GRADIENT		.00001	-.00001	-.00001	-.00006	.00001	.00002	.00000	.00001	.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA										
-4.000		.01246	-.01243	.00844	.03969	-.00750	.00577	.00109	.01326	.00338
.000		.01196	-.01192	.00826	.03764	-.00734	.00575	.00108	.01265	.00322
4.000		.01226	-.01222	.00834	.03821	-.00741	.00575	.00108	.01283	.00327
GRADIENT		-.00003	.00003	-.00001	-.00006	.00001	-.00000	-.00000	-.00005	-.00001

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA										
-4.000		.01250	-.01247	.00866	.03968	-.00769	.00595	.00112	.01363	.00347
.000		.01240	-.01236	.00856	.03970	-.00770	.00592	.00111	.01287	.00328
4.000		.01254	-.01250	.00881	.04039	-.00783	.00597	.00110	.01284	.00327
GRADIENT		.00000	-.00000	.00002	.00009	-.00002	-.00001	-.00000	-.00010	-.00003

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA										
-4.000		.01351	-.01347	.00906	.04152	-.00805	.00634	.00119	.01414	.00360
.000		.01330	-.01327	.00913	.04183	-.00811	.00630	.00113	.01332	.00339
4.000		.01341	-.01337	.00934	.04281	-.00830	.00610	.00115	.01347	.00343
GRADIENT		-.00001	.00001	.00004	.00016	-.00003	-.00003	-.00001	-.00008	-.00002

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA										
-4.000		.01408	-.01404	.00913	.04182	-.00811	.00646	.00122	.01528	.00389
.000		.01352	-.01349	.00894	.04098	-.00795	.00602	.00113	.01451	.00370
4.000		.01391	-.01387	.00938	.04115	-.00838	.00615	.00114	.01415	.00361
GRADIENT		-.00002	.00002	-.00002	-.00008	.00002	-.00005	-.00001	-.00014	-.00004

REFERENCE DATA  
 SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 47.8000 IN. YMRP = .0000 IN. Y0  
 GREF = 936.6500 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -+.000  
 BETA = -+.000  
 GRADIENT =

CA1	CUM1	CN2	CA2	CUM2	CA3	CUM3	CA4	CUM4
.01107	.00705	.03232	-100627	.00525	.00099	.0173	.0299	.0299
.01070	.00705	.03227	-100623	.00524	.00099	.0173	.0299	.0299
.01087	.00723	.03513	-100642	.00518	.00099	.0173	.0299	.0299
.00963	.00602	.00010	-100002	.00000	.00000	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA = .000  
 GRADIENT =

CA1	CUM1	CN2	CA2	CUM2	CA3	CUM3	CA4	CUM4
.01099	.00699	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = +.000  
 BETA = -+.000  
 GRADIENT =

CA1	CUM1	CN2	CA2	CUM2	CA3	CUM3	CA4	CUM4
.01099	.00699	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 3.000  
 BETA = .000  
 GRADIENT =

CA1	CUM1	CN2	CA2	CUM2	CA3	CUM3	CA4	CUM4
.01099	.00699	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 3.000  
 BETA = .000  
 GRADIENT =

CA1	CUM1	CN2	CA2	CUM2	CA3	CUM3	CA4	CUM4
.01099	.00699	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299
.01099	.00697	.03003	-100671	.00500	.00099	.0173	.0299	.0299

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMCS 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8042) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDGER = 10.000 SP08RK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MALM = .600

## PARAMETRIC DATA

RV/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 4.000  
 8.000  
 GRADIENT

CA1 .00975  
 .00950  
 .00926  
 .00935  
 .00945  
 -.00002

CLM1  
 -.00972  
 -.00947  
 -.00924  
 -.00934  
 -.00943  
 .00002

CN2  
 .00942  
 .00953  
 .00937  
 .00904  
 .00968  
 .00019

CA2  
 .02482  
 .02534  
 .02522  
 .02528  
 .03193  
 .00087

CLM2  
 -.00481  
 -.00491  
 -.00587  
 -.00626  
 -.00620  
 -.00017

CA3  
 .00493  
 .00493  
 .00504  
 .00480  
 .00480  
 -.00002

CLM3  
 .00093  
 .00093  
 .00095  
 .00090  
 .00090  
 -.00000

CA4  
 .00994  
 .00987  
 .01070  
 .01087  
 .01109  
 .00013

CLM4  
 .00253  
 .00251  
 .00273  
 .00277  
 .00283  
 .00003

RV/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00969  
 .00976  
 .00927  
 .00934  
 .00950  
 -.00005

CLM1  
 -.00966  
 -.00973  
 -.00925  
 -.00932  
 -.00947  
 .00005

CN2  
 .00962  
 .00945  
 .00905  
 .00902  
 .00998  
 .00018

CA2  
 .02577  
 .02455  
 .02772  
 .03173  
 .03197  
 .00065

CLM2  
 -.00500  
 -.00484  
 -.00538  
 -.00615  
 -.00620  
 -.00016

CA3  
 .00503  
 .00483  
 .00480  
 .00472  
 .00485  
 -.00001

CLM3  
 .00095  
 .00091  
 .00090  
 .00089  
 .00091  
 -.00000

CA4  
 .01015  
 .00983  
 .01021  
 .01039  
 .01068  
 .00007

CLM4  
 .00259  
 .00250  
 .00260  
 .00265  
 .00272  
 .00002

RV/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -8.000  
 -4.000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00975  
 .00978  
 .00988  
 .00941  
 .00941  
 -.00005

CLM1  
 -.00972  
 -.00975  
 -.00936  
 -.00938  
 -.00938  
 .00005

CN2  
 .00975  
 .00974  
 .00991  
 .00999  
 .00933  
 .00016

CA2  
 .02636  
 .02631  
 .02710  
 .03204  
 .03129  
 .00072

CLM2  
 -.00511  
 -.00510  
 -.00525  
 -.00621  
 -.00607  
 -.00014

CA3  
 .00507  
 .00473  
 .00455  
 .00469  
 .00469  
 -.00001

CLM3  
 .00095  
 .00089  
 .00086  
 .00088  
 .00088  
 -.00000

CA4  
 .01011  
 .00982  
 .00969  
 .00983  
 .01022  
 .00000

CLM4  
 .00258  
 .00250  
 .00247  
 .00250  
 .00260  
 .00000

RV/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -8.000  
 -4.000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00987  
 .00929  
 .00930  
 .00920  
 .00976  
 -.00001

CLM1  
 -.00984  
 -.00926  
 -.00868  
 -.00917  
 -.00973  
 .00001

CN2  
 .00986  
 .00951  
 .00999  
 .00956  
 .00999  
 .00013

CA2  
 .02683  
 .02524  
 .02742  
 .03006  
 .03204  
 .00060

CLM2  
 -.00520  
 -.00489  
 -.00532  
 -.00593  
 -.00621  
 -.00012

CA3  
 .00496  
 .00445  
 .00448  
 .00457  
 .00454  
 .00001

CLM3  
 .00093  
 .00094  
 .00084  
 .00086  
 .00085  
 .00000

CA4  
 .01007  
 .00945  
 .00943  
 .00945  
 .00994  
 -.00000

CLM4  
 .00257  
 .00241  
 .00240  
 .00241  
 .00253  
 -.00000

DATE 08 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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OA148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D42) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = 12.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 65.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00326	-.00824	.00534	.02722	-.00528	.00458	.00086	.00982	.00250
.00846	-.00843	.00581	.02663	-.00516	.00475	.00089	.00976	.00249
.00836	-.00834	.00596	.02731	-.00530	.00418	.00079	.00910	.00232
.00900	-.00897	.00664	.03042	-.00590	.00456	.00086	.00931	.00237
.00892	-.00890	.00663	.03039	-.00539	.00421	.00079	.00954	.00243
.00007	-.00007	.00010	.00047	-.00009	-.00002	-.00000	-.00005	-.00001

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 3.67 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = 000 SPDBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01038	-.01035	.00709	.03248	-.00630	.00478	.00090	.01105	.00282
.01046	-.01043	.00706	.03234	-.00627	.00479	.00090	.01108	.00282
.01058	-.01055	.00692	.03169	-.00615	.00465	.00088	.01087	.00277
.00003	-.00003	-.00002	-.00010	.00002	-.00002	-.00000	-.00002	-.00001

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 3.65 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01065	-.01062	.00711	.02259	-.00632	.00472	.00089	.01123	.00286
.01024	-.01022	.00692	.03170	-.00615	.00455	.00086	.01085	.00277
.01024	-.01021	.00681	.03121	-.00605	.00455	.00086	.01067	.00272
-.00005	.00005	-.00004	-.00017	.00003	-.00002	-.00000	-.00007	-.00002

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8043) ( 23 AUG 75 )

## REFERENCE DATA

SPRF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01067	-.01064	.00707	.03239	-.00628	.00473	.00089	.01073	.00273
	.01024	-.01021	.00694	.03182	-.00617	.00448	.00084	.01082	.00276
	.01022	-.01020	.00677	.03105	-.00602	.00439	.00083	.01064	.00271
GRADIENT	-.03006	.00006	-.00004	-.00017	.00003	-.00004	-.00001	-.00001	-.00000

RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01065	-.01062	.00701	.03214	-.00623	.00474	.00089	.01086	.00277
	.01036	-.01033	.00634	.03179	-.00616	.00468	.00088	.01068	.00272
	.01029	-.01026	.00688	.03153	-.00611	.00455	.00086	.01082	.00276
GRADIENT	-.03004	.00004	-.00002	-.00008	.00001	-.00002	-.00000	-.00001	-.00000

RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01040	-.01037	.00707	.03241	-.00628	.00501	.00094	.01120	.00285
	.00991	-.00988	.00685	.03141	-.00609	.00469	.00088	.01026	.00261
	.01042	-.01039	.00714	.03274	-.00635	.00451	.00085	.00394	.00253
GRADIENT	.00000	-.00000	.00001	.00004	-.00001	-.00006	-.00001	-.00016	-.00004

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EEB044) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6500 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

ALPHA = -4.000

BETA

-8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00916	-.00913	.00581	.02663	-.00516	.00460	.00087	.00980	.00250
.00895	-.00892	.00573	.02624	-.00509	.00438	.00082	.00953	.00243
.00897	-.00894	.00557	.02689	-.00522	.00449	.00084	.00955	.00243
.00889	-.00887	.00601	.02755	-.00534	.00436	.00082	.00939	.00239
.00893	-.00890	.00597	.02736	-.00531	.00429	.00081	.00937	.00239
-.00001	.00001	.00004	.00016	-.00003	-.00000	-.00000	-.00002	-.00000

ALPHA = .000

BETA

-8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00927	-.00924	.00597	.02736	-.00530	.00461	.00087	.00995	.00254
.00901	-.00898	.00582	.02666	-.00517	.00443	.00083	.00957	.00244
.00883	-.00885	.00568	.02601	-.00504	.00434	.00082	.00930	.00237
.00889	-.00887	.00602	.02761	-.00535	.00429	.00081	.00942	.00240
.00920	-.00918	.00625	.02863	-.00555	.00428	.00081	.00937	.00239
-.00002	.00002	.00003	.00012	-.00002	-.00000	-.00000	-.00002	-.00000

ALPHA = 4.000

BETA

-8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00927	-.00925	.00600	.02748	-.00533	.00458	.00086	.00979	.00249
.00901	-.00899	.00575	.02637	-.00511	.00429	.00081	.00950	.00242
.00864	-.00861	.00561	.02571	-.00499	.00406	.00077	.00919	.00234
.00899	-.00897	.00614	.02816	-.00546	.00432	.00081	.00926	.00236
.00927	-.00924	.00652	.02990	-.00580	.00433	.00082	.00927	.00236
-.00003	.00000	.00005	.00022	-.00004	.00000	-.00000	-.00003	-.00001

ALPHA = 8.000

BETA

-8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00958	-.00955	.00612	.02803	-.00544	.00458	.00086	.00974	.00248
.00894	-.00892	.00565	.02598	-.00502	.00425	.00080	.00950	.00242
.00839	-.00835	.00588	.02695	-.00523	.00408	.00077	.00891	.00227
.00863	-.00860	.00593	.02720	-.00527	.00413	.00078	.00931	.00237
.00915	-.00912	.00651	.02982	-.00578	.00415	.00078	.00949	.00242
-.00004	.00004	.00004	.00016	-.00003	-.00002	-.00000	-.00002	-.00001



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D44) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.0084	-.00842	.00569	.02609	-.00506	.00453	.00085	.00961	.00245
.00959	-.00856	.00566	.02593	-.00503	.00448	.00094	.00924	.00235
.00826	-.00824	.00502	.02759	-.00535	.00399	.00075	.00851	.00217
.00834	-.00832	.00647	.02953	-.00575	.00432	.00081	.00898	.00229
.00867	-.00864	.00642	.02942	-.00571	.00392	.00074	.00880	.00224
.00903	-.00903	.00010	.00046	-.00009	-.00002	-.00000	-.00003	-.00001

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D45) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .900

## PARAMETRIC DATA

RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01036	-.01033	.00677	.03105	-.00602	.00468	.00088	.01098	.00280
.01054	-.01051	.00687	.03147	-.00610	.00477	.00090	.01150	.00293
.01054	-.01051	.00691	.03166	-.00614	.00468	.00088	.01110	.00283
.00002	-.00002	.00002	.00008	-.00001	.00000	.00000	.00002	.00000

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01038	-.01035	.00693	.03132	-.00607	.00462	.00087	.01056	.00269
.01056	-.01053	.00694	.03182	-.00617	.00442	.00083	.01049	.00267
.01049	-.01046	.00684	.03136	-.00608	.00448	.00084	.01090	.00278
.00001	-.00001	.00000	.00001	-.00000	-.00002	-.00000	.00004	.00001

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D45) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 336.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000  
 BDFLAP = 22.500  
 ELVN-R = 4.000  
 ELVN-L = 4.000  
 MACH = .900

## PARAMETRIC DATA

RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA1  
 .01044  
 .01008  
 .01053  
 .00001

CLM1

-.01041

-.01005

-.01050

-.00001

CN2

.00693

.00664

.00689

-.00001

CA2

.03178

.03041

.03158

-.00003

CLM2

-.00616

-.00590

-.00612

.00000

CA3

.00476

.00440

.00450

-.00003

CLM3

.00089

.00083

.00085

-.00001

CA4

.01027

.01017

.01038

.00001

CLM4

.00262

.00259

.00264

.00000

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA1  
 .01041  
 .01036  
 .01058  
 .00003

CLM1

-.01038

-.01033

-.01065

-.00003

CN2

.00694

.00680

.00707

.00002

CA2

.03179

.03119

.03240

.00008

CLM2

-.00616

-.00605

-.00628

-.00001

CA3

.00463

.00441

.00448

-.00002

CLM3

.00087

.00083

.00084

-.00000

CA4

.01036

.01000

.00979

-.00007

CLM4

.00264

.00255

.00249

-.00002

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA1  
 .01081  
 .01060  
 .01085  
 .00001

CLM1

-.01078

-.01057

-.01092

-.00001

CN2

.00728

.00708

.00723

-.00001

CA2

.03337

.03243

.03315

-.00003

CLM2

-.00647

-.00629

-.00643

.00001

CA3

.00484

.00454

.00472

-.00001

CLM3

.00091

.00085

.00089

-.00000

CA4

.01106

.01032

.01002

-.00013

CLM4

.00282

.00263

.00255

-.00003

(EE8046) ( 23 AUG 75 )

0A148 -140 A/B/C/R FOREBODY INCREMENTS

REFERENCE DATA

SPEF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LPEF = 474.6000 IN. YMRP = .0000 IN. YO  
 BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-8.000	.00991	-.00688	.00579	.02652	-.00514	.00467	.00088	.00958	.00244	
-4.000	.00852	-.00859	.00559	.02563	-.00497	.00445	.00084	.00940	.00240	
.000	.00865	-.00853	.00538	.02693	-.00522	.00441	.00083	.00923	.00235	
4.000	.00832	-.00830	.00531	.02707	-.00525	.00441	.00083	.00886	.00226	
8.000	.00859	-.00855	.00520	.02680	-.00520	.00405	.00076	.00883	.00225	
GRADIENT	-.00004	.00004	.00018	.00018	-.00003	-.00001	-.00000	-.00007	-.00002	

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-8.000	.00903	-.00900	.00593	.02717	-.00527	.00464	.00087	.00970	.00247	
-4.000	.00874	-.00871	.00561	.02571	-.00499	.00449	.00084	.00943	.00240	
.000	.00837	-.00835	.00568	.02604	-.00505	.00424	.00080	.00908	.00231	
4.000	.00872	-.00869	.00535	.02757	-.00411	.00411	.00077	.00882	.00225	
8.000	.00879	-.00877	.00500	.02750	-.00533	.00411	.00077	.00870	.00222	
GRADIENT	-.00000	.00000	.00005	.00023	-.00005	-.00005	-.00001	-.00008	-.00002	

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-8.000	.00917	-.00915	.00599	.02701	-.00524	.00471	.00089	.00996	.00254	
-4.000	.00899	-.00897	.00570	.02614	-.00507	.00437	.00082	.00933	.00238	
.000	.00827	-.00825	.00559	.02563	-.00497	.00400	.00075	.00855	.00218	
4.000	.00883	-.00881	.00608	.02784	-.00540	.00419	.00079	.00878	.00224	
8.000	.00894	-.00892	.00603	.02761	-.00535	.00417	.00078	.00855	.00218	
GRADIENT	-.00002	.00002	.00005	.00021	-.00004	-.00002	-.00000	-.00007	-.00002	

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-8.000	.00904	-.00901	.00603	.02763	-.00536	.00477	.00090	.01006	.00256	
-4.000	.00883	-.00880	.00569	.02609	-.00506	.00428	.00080	.00903	.00230	
.000	.00817	-.00814	.00546	.02503	-.00485	.00395	.00074	.00845	.00215	
4.000	.00855	-.00853	.00566	.02684	-.00520	.00405	.00076	.00868	.00221	
8.000	.00841	-.00839	.00502	.02758	-.00535	.00400	.00075	.00855	.00218	
GRADIENT	-.00003	.00003	.00009	.00009	-.00002	-.00003	-.00001	-.00004	-.00001	

DATE 08 MAY 76 TABULATED FORCE DATA - OA148 ( AMES 11-073-1 ) (EE8046) ( 23 AUG 75 )

OA148 -140 A/B/C/R FOREBODY INCREMENTS 1  
 REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300  
 ALPHA = 12.000  
 BETA = -9.000  
 GRADIENT = 1.000

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00  
 PARAMETRIC DATA  
 RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00881	-.00878	.00591	.02709	-.00525	.00457	.00086	.00999	.00255
.00852	-.00850	.00558	.02559	-.00496	.00451	.00085	.00926	.00336
.00828	-.00825	.00550	.02520	-.00489	.00402	.00076	.00850	.00217
.00804	-.00802	.00560	.02566	-.00498	.00334	.00074	.00825	.00210
.00811	-.00809	.00563	.02578	-.00500	.00346	.00065	.00813	.00207
.00805	-.00805	.00500	.00001	-.00000	.00007	-.00001	-.00013	-.00003

OA148 -140 A/B/C/R FOREBODY INCREMENTS 1 (EE8047) ( 23 AUG 75 )

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .3300  
 ALPHA = -4.000  
 BETA = -4.000  
 GRADIENT = 1.000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00  
 PARAMETRIC DATA  
 RUDDER = -10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.400

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00957	-.00965	.00634	.02907	-.00564	.00471	.00089	.01060	.00270
.00946	-.00943	.00618	.02823	-.00549	.00438	.00082	.01035	.00264
.00975	-.00973	.00616	.02824	-.00548	.00432	.00081	.01046	.00267
.00901	-.00901	-.00002	-.00010	.00002	-.00005	-.00001	-.00002	-.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00  
 PARAMETRIC DATA  
 RUDDER = -10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.400

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00984	-.00991	.00650	.02980	-.00578	.00454	.00085	.01056	.00269
.00978	-.00975	.00652	.02989	-.00580	.00433	.00081	.01028	.00262
.01014	-.01011	.00652	.02989	-.00580	.00435	.00082	.01061	.00270
.00904	-.00904	.00000	.00001	-.00000	-.00002	-.00000	.00001	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT.                      XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN.                      YMRP = .0000 IN. YO  
 BREF = 936.6800 IN.                      ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000                      SPOBRK = 85.000  
 BDFLAP = 16.300                      ELVN-L = 4.000  
 ELVN-R = 4.000                      MACH = 1.400

RN/L = 2.92                      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01008	-.01005	.00659	.03065	-.00594	.00440	.00083	-.01018	.00260
.01005	-.01002	.00658	.03016	-.00595	.00437	.00082	.00978	.00249
.01043	-.01041	.00679	.03113	-.00604	.00442	.00083	.01059	.00270
.00004	-.00004	.00001	.00006	-.00001	.00000	.00000	.00005	.00001

RN/L = 2.92                      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01060	-.01057	.00695	.03185	-.00618	.00464	.00087	-.01115	.00284
.01034	-.01032	.00671	.03075	-.00596	.00447	.00084	.01028	.00262
.01044	-.01041	.00684	.03132	-.00607	.00427	.00080	.01013	.00258
.00002	-.00002	-.00001	-.00007	.00001	-.00005	-.00001	-.00013	-.00003

RN/L = 2.92                      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01088	-.01085	.00715	.03276	-.00635	.00483	.00091	-.01130	.00288
.01081	-.01078	.00699	.03204	-.00621	.00464	.00087	.01073	.00273
.01075	-.01072	.00707	.03240	-.00628	.00450	.00085	.01039	.00265
.00002	-.00002	-.00001	-.00005	.00001	-.00004	-.00001	-.00011	-.00003

RN/L = 2.92                      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01122	-.01119	.00735	.03369	-.00653	.00504	.00095	-.01181	.00301
.01104	-.01101	.00759	.03477	-.00674	.00487	.00092	.01144	.00291
.01107	-.01104	.00746	.03418	-.00653	.00470	.00088	.01123	.00285
.00002	-.00002	.00001	.00006	-.00001	-.00004	-.00001	-.00007	-.00002

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TABULATED FORCE DATA - CA148 ( AMES 11-073-1 )  
OAI48 -140 A/B/C/R FOREBODY INCREMENTS

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(EEED48) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0  
LREF = 474.6900 IN. YMRP = .0000 IN. Y0  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0200

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 65.000  
BCFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01056	-.01053	.00696	.03189	-.00618	.00511	.00095	.01147	.00292
.01063	-.01060	.00636	.03192	-.00619	.00493	.00093	.01144	.00292
.01115	-.01112	.00719	.03295	-.00639	.00505	.00095	.01178	.00300
.00037	-.00007	.00003	.00013	-.00003	-.00001	-.00000	.00004	.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01093	-.01090	.00724	.03316	-.00643	.00491	.00092	.01133	.00289
.01092	-.01079	.00713	.03289	-.00634	.00487	.00092	.01123	.00286
.01109	-.01106	.00734	.03354	-.00652	.00489	.00092	.01155	.00297
.00002	-.00002	.00001	.00006	-.00001	-.00000	-.00000	.00004	.00001

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01155	-.01152	.00750	.03436	-.00666	.00504	.00096	.01163	.00301
.01141	-.01137	.00754	.03457	-.00670	.00498	.00094	.01155	.00289
.01169	-.01164	.00766	.03509	-.00680	.00499	.00094	.01153	.00291
.00000	-.00002	.00002	.00009	-.00002	-.00001	-.00000	.00005	-.00001

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 9.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01217	-.01214	.00788	.03610	-.00700	.00539	.00101	.01265	.00327
.01194	-.01191	.00775	.03551	-.00689	.00518	.00098	.01169	.00298
.01215	-.01212	.00792	.03650	-.00708	.00508	.00096	.01155	.00294
-.00000	.00000	.00001	.00005	-.00001	-.00004	-.00001	.00016	-.00004

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01262	-.01259	.00835	.03831	-.00743	.00562	.00105	.01314	.00316
.01249	-.01246	.00834	.03823	-.00741	.00548	.00103	.01259	.00300
.01255	-.01251	.00808	.03702	-.00718	.00517	.00097	.01222	.00312
-.00003	.00003	-.00004	-.00015	.00003	-.00006	-.00001	.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 471

0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EEED49) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.6000 IN.  
 BREF = 936.6000 IN.  
 SC = .0300

YMRP = 1076.6900 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPCBRK = 95.000  
 SDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 PACH = 1.100

## PARAMETRIC DATA

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01229  
 .01246  
 .01307  
 .00010  
 CLM1 -.01225  
 -.01242  
 -.01303  
 -.00010  
 CN2 .00824  
 .00815  
 .00846  
 .00033  
 CA2 .03776  
 .03737  
 .03876  
 .00012  
 CLM2 -.00732  
 -.00725  
 -.00752  
 -.00032  
 CA3 .00568  
 .00567  
 .00574  
 .00001  
 CLM3 .00107  
 .00107  
 .00108  
 .00000  
 CA4 .01284  
 .01271  
 .01334  
 .00005  
 CLM4 .00327  
 .00324  
 .00340  
 .00002

RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01231  
 .01186  
 .01239  
 .00001  
 CLM1 -.01227  
 -.01183  
 -.01235  
 -.00001  
 CN2 .00902  
 .00795  
 .00827  
 .00003  
 CA2 .03675  
 .03642  
 .03792  
 .00015  
 CLM2 -.00713  
 -.00706  
 -.00735  
 -.00033  
 CA3 .00542  
 .00535  
 .00549  
 .00001  
 CLM3 .00102  
 .00101  
 .00103  
 .00000  
 CA4 .01234  
 .01247  
 .01255  
 .00006  
 CLM4 .00314  
 .00318  
 .00328  
 .00002

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01292  
 .01261  
 .01293  
 -.00001  
 CLM1 -.01289  
 -.01257  
 -.01279  
 .00001  
 CN2 .00842  
 .00832  
 .00855  
 .00002  
 CA2 .03860  
 .03814  
 .03923  
 .00008  
 CLM2 -.00748  
 -.00740  
 -.00761  
 -.00002  
 CA3 .00552  
 .00552  
 .00551  
 -.00000  
 CLM3 .00104  
 .00104  
 .00104  
 -.00000  
 CA4 .01292  
 .01276  
 .01265  
 -.00003  
 CLM4 .00329  
 .00325  
 .00323  
 -.00001

RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01359  
 .01336  
 .01344  
 -.00002  
 CLM1 -.01355  
 -.01332  
 -.01340  
 .00002  
 CN2 .00878  
 .00822  
 .00834  
 .00002  
 CA2 .04026  
 .04044  
 .04195  
 .00009  
 CLM2 -.00781  
 -.00784  
 -.00784  
 -.00002  
 CA3 .00583  
 .00582  
 .00579  
 -.00001  
 CLM3 .00110  
 .00110  
 .00109  
 -.00000  
 CA4 .01362  
 .01353  
 .01331  
 -.00008  
 CLM4 .00347  
 .00345  
 .00331  
 -.00002

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01410  
 .01353  
 .01397  
 -.00002  
 CLM1 -.01406  
 -.01359  
 -.01333  
 .00002  
 CN2 .00878  
 .00800  
 .00833  
 -.00002  
 CA2 .04301  
 .04214  
 .04228  
 -.00009  
 CLM2 -.00834  
 -.00817  
 -.00820  
 .00012  
 CA3 .00519  
 .00503  
 .00503  
 -.00003  
 CLM3 .00116  
 .00113  
 .00112  
 -.00001  
 CA4 .01419  
 .01355  
 .01330  
 -.00011  
 CLM4 .00361  
 .00345  
 .00339  
 -.00003

DATE 08 MAY 76

TABULATED FORCE DATA - OAI48 (AMES 11-073-1)

PAGE 472

OAI48 -140 A/B/C/R FOREBODY INCREMENTS

(EE5550) 1 23 AUG 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

RUDDER = -12.000 SPDRK = 95.000  
SDFLAP = 16.000 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = .900

PARAMETRIC DATA

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA = 4.000  
GRADIENT = 4.000

CA1 .01076  
CA2 .02939  
CA3 .00499  
CA4 .01060  
CLM1 -.01075  
CLM2 -.00570  
CLM3 .00394  
CLM4 .00270

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA = 4.000  
GRADIENT = 4.000

CA1 .01055  
CA2 .02365  
CA3 .00434  
CA4 .01051  
CLM1 -.00984  
CLM2 -.00553  
CLM3 .00391  
CLM4 .00270

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA = 4.000  
GRADIENT = 4.000

CA1 .01021  
CA2 .02397  
CA3 .00460  
CA4 .01010  
CLM1 -.00976  
CLM2 -.00552  
CLM3 .00395  
CLM4 .00257

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 5.000  
BETA = 5.000  
GRADIENT = 5.000

CA1 .00979  
CA2 .02394  
CA3 .00459  
CA4 .00990  
CLM1 -.00970  
CLM2 -.00550  
CLM3 .00388  
CLM4 .00252

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA = 12.000  
GRADIENT = 12.000

CA1 .01023  
CA2 .02947  
CA3 .00457  
CA4 .01027  
CLM1 -.00981  
CLM2 -.00561  
CLM3 .00386  
CLM4 .00252

REPORT OF RESULTS  
OAI48 -140 A/B/C/R FOREBODY



(EE8051) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R FOREBODY INCREMENTS

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XREF = 1076.6900 IN. X0  
LREF = 474.8000 IN. YREF = .0000 IN. Y0  
BREF = 936.6900 IN. ZREF = 375.0000 IN. Z0  
SCALE = .0300

RUDDER = -10.000 SPDERX = 85.000  
BD-LAP = 16.300 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = .600

PARAMETRIC DATA

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CAL	CLM1	CLM2	CLM3	CLM4
BETA	.00914	.00911	.00490	.00512	.00250
-8.000	.00917	.00490	.00483	.00593	.00247
-4.000	.00920	.00474	.00480	.00631	.00266
.000	.00885	.00590	.00515	.00687	.00264
4.000	.00854	.00511	.00443	.00733	.00246
8.000	.00874	.00424	.00368	.00787	.00257
GRADIENT	.00008	.00039	.00008	.00001	.00002
ALPHA = .000	CAL	CLM1	CLM2	CLM3	CLM4
BETA	.00903	.00900	.00535	.00506	.00249
-8.000	.00912	.00909	.00492	.00582	.00246
-4.000	.00861	.00856	.00476	.00595	.00251
.000	.00857	.00809	.00503	.00636	.00257
4.000	.00854	.00791	.00541	.00652	.00244
8.000	.00854	.00602	.00535	.00683	.00245
GRADIENT	.00007	.00007	.00002	.00001	.00001
ALPHA = 4.000	CAL	CLM1	CLM2	CLM3	CLM4
BETA	.00993	.00995	.00537	.00511	.00250
-8.000	.00976	.00984	.00492	.00585	.00244
-4.000	.00930	.00931	.00472	.00599	.00235
.000	.00853	.00857	.00493	.00633	.00241
4.000	.00853	.00822	.00532	.00652	.00241
8.000	.00853	.00621	.00532	.00680	.00240
GRADIENT	.00002	.00011	.00010	.00001	.00000
ALPHA = 8.000	CAL	CLM1	CLM2	CLM3	CLM4
BETA	.00847	.00845	.00497	.00511	.00250
-8.000	.00850	.00848	.00476	.00582	.00240
-4.000	.00822	.00820	.00485	.00595	.00235
.000	.00811	.00811	.00511	.00633	.00233
4.000	.00811	.00790	.00532	.00652	.00233
8.000	.00811	.00605	.00532	.00680	.00233
GRADIENT	.00005	.00005	.00004	.00001	.00001



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D52) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 935.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPCBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	-4.000	.01017	-.01014	.00639	.02922	-.00567	.00437	.00082	.01039	.00265
	.000	.00999	-.00996	.00603	.02763	-.00536	.00425	.00080	.00985	.00251
	4.000	.01029	-.01026	.00622	.02850	-.00553	.00433	.00081	.01050	.00268
GRADIENT		.00002	-.00002	-.00002	-.00009	.00002	-.00001	-.00000	.00001	.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	-4.000	.01072	-.01059	.00661	.03028	-.00587	.00459	.00086	.01077	.00275
	.000	.01023	-.01020	.00636	.02913	-.00555	.00434	.00082	.01023	.00261
	4.000	.01038	-.01035	.00639	.02938	-.00558	.00432	.00081	.01031	.00263
GRADIENT		-.00004	.00004	-.00003	-.00013	.00002	-.00003	-.00001	-.00006	-.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	-4.000	.01077	-.01074	.00678	.03107	-.00603	.00472	.00089	.01119	.00285
	.000	.01063	-.01060	.00647	.02964	-.00575	.00443	.00083	.01055	.00269
	4.000	.01071	-.01069	.00673	.03083	-.00598	.00446	.00084	.01067	.00272
GRADIENT		-.00001	.00001	-.00001	-.00003	.00001	-.00003	-.00001	-.00007	-.00002

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	-4.000	.01121	-.01118	.00725	.03327	-.00644	.00495	.00093	.01168	.00298
	.000	.01102	-.01099	.00749	.03431	-.00665	.00484	.00091	.01145	.00292
	4.000	.01114	-.01111	.00744	.03412	-.00662	.00476	.00089	.01113	.00284
GRADIENT		-.00001	.00001	.00002	.00011	-.00002	-.00002	-.00000	-.00007	-.00002

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE9D53) ( 23 AUG 75 )

1

## REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPCBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

-4.000

4.000

GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01204	-.01200	.00808	.03705	-.00718	.00565	.00106	.01259	.00321
.01233	-.01230	.00829	.03799	-.00737	.00551	.00104	.01255	.00330
.01245	-.01242	.00817	.03745	-.00726	.00547	.00103	.01303	.00332
.00005	-.00005	.00001	.00005	-.00001	-.00002	-.00000	.00005	.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

-4.000

4.000

GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01212	-.01209	.00803	.03578	-.00713	.00540	.00102	.01272	.00324
.01224	-.01221	.00809	.03706	-.00719	.00535	.00101	.01255	.00320
.01253	-.01250	.00811	.03718	-.00721	.00541	.00102	.01307	.00333
.00006	-.00006	.00001	.00005	-.00001	.00000	.00000	.00004	.00001

ALPHA = 4.000

BETA

-4.000

-4.000

4.000

GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01152	-.01149	.00721	.03303	-.00640	.00505	.00095	.01171	.00298
.01145	-.01142	.00696	.03191	-.00619	.00486	.00091	.01121	.00286
.01153	-.01150	.00689	.03158	-.00612	.00478	.00090	.01149	.00293
.00000	-.00000	-.00004	-.00018	.00003	-.00003	-.00001	-.00003	-.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

-4.000

4.000

GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01208	-.01205	.00751	.03443	-.00668	.00532	.00100	.01229	.00313
.01176	-.01173	.00713	.03267	-.00633	.00504	.00095	.01165	.00297
.01193	-.01190	.00722	.03310	-.00642	.00496	.00092	.01190	.00303
-.00001	-.00001	-.00004	-.00017	.00003	-.00004	-.00001	-.00005	-.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

-4.000

4.000

GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01221	-.01217	.00780	.03574	-.00693	.00542	.00102	.01268	.00323
.01204	-.01200	.00738	.03793	-.00656	.00509	.00096	.01196	.00305
.01219	-.01216	.00741	.03397	-.00659	.00506	.00095	.01232	.00314
-.00000	-.00000	-.00005	-.00022	.00004	-.00005	-.00001	-.00005	-.00001

REFERENCE DATA

SREF = 2690.0000 SQ.FT.

LREF = 474.8000 IN.

BREF = 936.6000 IN.

SCALE = .0300

QAI48 -140 A/B/C/R FOREBODY INCREMENTS

RUDDER = -10.000

BDFLAP = 16.300

ELVN-R = 4.000

SPOBRK = 55.000

ELVN-L = -4.000

MACH = 1.100

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01199	-.01196	.00818	.03748	-.00727	.00553	.00104	.01243	.00317
.000	.01212	-.01209	.00801	.03670	-.00712	.00551	.00104	.01257	.00320
4.000	.01248	-.01245	.00901	.03671	-.00712	.00546	.00103	.01292	.00329
GRADIENT	.00005	-.00005	-.00002	-.00010	.00002	-.00001	-.00000	.00006	.00002
RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = .000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01212	-.01209	.00784	.03591	-.00696	.00558	.00105	.01239	.00316
.000	.01190	-.01187	.00789	.03509	-.00700	.00536	.00101	.01227	.00313
4.000	.01234	-.01231	.00770	.03530	-.00684	.00534	.00100	.01271	.00324
GRADIENT	.00003	-.00003	-.00002	-.00008	.00001	-.00003	-.00001	.00004	.00001
RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01275	-.01272	.00798	.03658	-.00709	.00568	.00107	.01293	.00329
.000	.01250	-.01247	.00792	.03631	-.00704	.00551	.00104	.01244	.00317
4.000	.01288	-.01284	.00780	.03573	-.00693	.00538	.00101	.01279	.00326
GRADIENT	.00002	-.00002	-.00002	-.00011	.00002	-.00004	-.00001	-.00002	-.00000
RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01339	-.01335	.00840	.03949	-.00746	.00603	.00113	.01382	.00352
.000	.01310	-.01306	.00816	.03742	-.00726	.00569	.00107	.01307	.00333
4.000	.01346	-.01342	.00841	.03855	-.00748	.00559	.00105	.01334	.00340
GRADIENT	.00001	-.00001	.00000	.00001	-.00000	-.00006	-.00001	-.00006	-.00002
RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01370	-.01366	.00892	.04043	-.00784	.00616	.00116	.01417	.00361
.000	.01323	-.01319	.00835	.03825	-.00742	.00576	.00108	.01326	.00338
4.000	.01390	-.01376	.00864	.03962	-.00768	.00570	.00107	.01369	.00349
GRADIENT	.00001	-.00001	-.00002	-.00010	.00002	-.00006	-.00001	-.00006	-.00002

DATE 08 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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OA148 -140 A/B/C/R FOREBODY INCREMENTS

(EEBD55) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 935.6800 IN.  
 SCALE = .0300

XMRP = 1075.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .900

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA = -4.000  
 GRADIENT = 4.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00950	-.00957	.00601	.02754	-.00534	.00454	.00085	.01008	.00257
.00956	-.00953	.00615	.02820	-.00547	.00460	.00087	.01024	.00261
.00930	-.00927	.00593	.02716	-.00527	.00437	.00082	.00967	.00247
-.00004	-.00001	-.00005	-.00001	-.00001	-.00002	-.00000	-.00005	-.00001

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA = -4.000  
 GRADIENT = 4.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00948	-.00946	.00594	.02722	-.00528	.00442	.00083	.00982	.00250
.00912	-.00872	.00606	.02778	-.00539	.00417	.00079	.00952	.00243
.00898	-.00895	.00580	.02660	-.00516	.00415	.00078	.00958	.00244
-.00006	-.00002	-.00008	-.00008	-.00002	-.00003	-.00001	-.00003	-.00001

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA = -4.000  
 GRADIENT = 4.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00948	-.00946	.00605	.02772	-.00537	.00432	.00081	.00971	.00248
.00874	-.00872	.00570	.02614	-.00507	.00399	.00075	.00920	.00234
.00869	-.00866	.00558	.02557	-.00496	.00402	.00076	.00920	.00234
-.00010	-.00010	-.00006	-.00027	-.00005	-.00004	-.00001	-.00006	-.00002

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA = -4.000  
 GRADIENT = 4.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00919	-.00917	.00572	.02619	-.00508	.00433	.00081	.00967	.00246
.00876	-.00874	.00542	.02484	-.00482	.00390	.00073	.00895	.00228
.00895	-.00893	.00525	.02404	-.00466	.00383	.00072	.00850	.00217
-.00003	-.00003	-.00006	-.00027	-.00005	-.00006	-.00001	-.00015	-.00004

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA = -4.000  
 GRADIENT = 4.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00954	-.00952	.00592	.02715	-.00526	.00424	.00080	.00976	.00249
.00905	-.00902	.00548	.02511	-.00487	.00392	.00074	.00893	.00228
.00913	-.00910	.00527	.02414	-.00468	.00413	.00078	.00916	.00233
-.00005	-.00006	-.00008	-.00038	-.00007	-.00001	-.00000	-.00008	-.00002

REFERENCE DATA

STEF = 2690.000 SQ.FT.

LPEF = 474.8000 IN.

BPEF = 936.6800 IN.

SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000

BDFLAP = 16.300

ELVN-R = 4.000

SPDRK = 55.000

ELVN-L = -4.000

MACH = .600

ALPHA = -4.000									
BETA									
-8.000									
-4.000									
.000									
4.000									
8.000									
GRADIENT									
RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00									
CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4	
.00788	-.00786	.00518	.02372	-.00460	.00433	.00081	.00900	.00229	
.00789	-.00787	.00517	.02371	-.00460	.00420	.00079	.00902	.00230	
.00800	-.00798	.00534	.02448	-.00475	.00422	.00079	.00868	.00221	
.00792	-.00789	.00534	.02447	-.00474	.00401	.00075	.00858	.00219	
.00815	-.00814	.00515	.02358	-.00457	.00398	.00075	.00856	.00218	
.00000	-.00000	.00002	.00009	-.00002	-.00002	-.00000	-.00005	-.00001	

ALPHA = .000									
BETA									
-8.000									
-4.000									
.000									
4.000									
8.000									
GRADIENT									
RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00									
CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4	
.00795	-.00793	.00525	.02405	-.00466	.00443	.00083	.00901	.00230	
.00790	-.00788	.00523	.02396	-.00465	.00423	.00079	.00868	.00226	
.00779	-.00777	.00527	.02417	-.00469	.00406	.00076	.00858	.00219	
.00793	-.00791	.00520	.02382	-.00462	.00390	.00073	.00824	.00210	
.00838	-.00835	.00521	.02398	-.00463	.00400	.00075	.00852	.00217	
.00000	-.00000	.00000	-.00002	.00000	-.00004	-.00001	-.00008	-.00002	

ALPHA = 4.000									
BETA									
-8.000									
-4.000									
.000									
4.000									
8.000									
GRADIENT									
RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00									
CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4	
.00815	-.00812	.00548	.02512	-.00487	.00434	.00082	.00881	.00224	
.00800	-.00797	.00541	.02477	-.00480	.00416	.00078	.00890	.00224	
.00783	-.00781	.00518	.02374	-.00460	.00390	.00073	.00824	.00210	
.00823	-.00801	.00510	.02337	-.00453	.00399	.00075	.00842	.00215	
.00825	-.00823	.00492	.02430	-.00437	.00380	.00072	.00808	.00206	
.00000	-.00000	.00004	-.00017	.00003	-.00002	-.00000	-.00005	-.00001	

ALPHA = 8.000									
BETA									
-8.000									
-4.000									
.000									
4.000									
8.000									
GRADIENT									
RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00									
CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4	
.00814	-.00812	.00569	.02609	-.00506	.00437	.00082	.00928	.00236	
.00799	-.00795	.00539	.02469	-.00479	.00414	.00078	.00883	.00225	
.00763	-.00761	.00509	.02331	-.00452	.00365	.00069	.00778	.00198	
.00754	-.00752	.00494	.02264	-.00439	.00368	.00069	.00791	.00202	
.00821	-.00819	.00494	.02265	-.00439	.00371	.00070	.00838	.00214	
.00005	-.00005	.00006	-.00026	.00005	-.00006	-.00001	-.00011	-.00003	

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8056) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .600

ALPHA = 12.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00797	-.00795	.00561	.02573	-.00499	.00442	.00083	.00940	.00240
.00785	-.00782	.00530	.02427	-.00471	.00420	.00079	.00847	.00216
.00769	-.00767	.00476	.02183	-.00423	.00370	.00070	.00793	.00202
.00742	-.00740	.00471	.02159	-.00419	.00366	.00069	.00690	.00176
.00763	-.00781	.00463	.02124	-.00412	.00348	.00066	.00751	.00154
-.00005	.00005	-.00007	-.00034	.00006	-.00007	-.00001	-.00020	-.00005

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.400

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00996	-.00994	.00657	.03010	-.00584	.00471	.00089	.01092	.00278
.01015	-.01012	.00643	.02949	-.00572	.00463	.00087	.01092	.00278
.01015	-.01012	.00643	.02913	-.00565	.00447	.00084	.01077	.00274
.00002	-.00002	-.00003	-.00012	.00002	-.00003	-.00001	-.00002	-.00000

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01021	-.01018	.00656	.03005	-.00583	.00473	.00089	.01106	.00282
.01021	-.01018	.00653	.02990	-.00580	.00446	.00084	.01075	.00274
.01024	-.01021	.00658	.03016	-.00585	.00436	.00082	.01059	.00270
.00000	-.00000	.00000	.00001	-.00000	-.00005	-.00001	-.00006	-.00001



## PARAMETRIC DATA

RUDDER =	10.000	SPOBRK =	55.000
BDFLAP =	16.300	ELVN-L =	4.000
ELVN-R =	-4.000	MACH =	1.400

## REFERENCE DATA

SREF	=	2630.0000	SO.FT.	XMRP	=	1076.6800	IN.	X0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN.	Y0
BREF	=	935.6800	IN.	ZMRP	=	375.0000	IN.	Z0
SCALE	=	.0330						

BN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA =	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
4.000									
BETA									
-4.000	.01020	-.01017	.00667	.03056	-.00593	.00456	.00866	.01074	.00274
.000	.00998	-.00996	.00660	.03025	-.00586	.00431	.00881	.01006	.00256
4.000	.01014	-.01011	.00667	.03057	-.00593	.00416	.00878	.01041	.00265
0.000	.00991	-.00991	.00660	.03000	-.00600	.00000	.00001	-.00004	-.00001

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
12.000										
	12.000									
		0.1085	-0.0182	0.0712	0.03261	-0.0532	0.0480	0.0090	0.1109	0.0283
	-4.000	0.1067	-0.0164	0.0723	0.0316	-0.0643	0.0460	0.0087	0.1100	0.0280
	0.000	0.1091	-0.0191	0.0717	0.03289	-0.0637	0.0458	0.0086	0.1041	0.0265
	4.000	0.2241	-0.0001	0.0001	0.0003	-0.0001	-0.0003	-0.0001	-0.0009	0.0002
	0.000	0.0000	0.0001	0.0001	0.0003	-0.0001	-0.0003	-0.0001	-0.0009	-0.0002

RNVL	=	2.91	GRADIENT INTERVAL	=	-5.00/	5.00
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[illegible]

DATE 08 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8058) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	-4.000	.01114	-.01111	.00713	.03268	-.00634	.00529	.00190	.01206	.00307
GRADIENT	4.000	.01085	-.01082	.00696	.03190	-.00619	.00495	.00093	.01154	.00294
	4.000	.01108	-.01105	.00698	.03198	-.00620	.00484	.00091	.01147	.00292
	4.000	-.00001	.00001	-.00002	-.00009	.00002	-.00006	-.00001	-.00007	-.00002

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.000	.01126	-.01123	.00729	.03339	-.00649	.00517	.00097	.01211	.00309
GRADIENT	4.000	.01094	-.01091	.00725	.03324	-.00644	.00486	.00091	.01128	.00288
	4.000	.01118	-.01115	.00724	.03320	-.00644	.00482	.00091	.01150	.00293
	4.000	-.00001	.00001	-.00001	-.00002	.00000	-.00004	-.00001	-.00008	-.00002

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	4.000	.01139	-.01135	.00745	.03415	-.00662	.00498	.00094	.01190	.00303
GRADIENT	4.000	.01145	-.01141	.00766	.03511	-.00681	.00494	.00093	.01140	.00290
	4.000	.01136	-.01133	.00758	.03474	-.00674	.00483	.00091	.01116	.00284
	4.000	-.00000	.00000	.00002	.00007	-.00001	-.00002	-.00000	-.00009	-.00002

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	8.000	.01191	-.01167	.00801	.03669	-.00711	.00518	.00098	.01202	.00306
GRADIENT	4.000	.01177	-.01174	.00793	.03634	-.00705	.00512	.00096	.01201	.00306
	4.000	.01195	-.01191	.00795	.03646	-.00707	.00508	.00096	.01173	.00299
	4.000	.00001	.00000	-.00001	-.00003	.00001	-.00001	-.00000	-.00004	-.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	12.000	.01229	-.01225	.00823	.03773	-.00732	.00532	.00100	.01246	.00318
GRADIENT	4.000	.01217	-.01214	.00809	.03710	-.00719	.00525	.00099	.01222	.00311
	4.000	.01209	-.01206	.00811	.03719	-.00721	.00514	.00097	.01167	.00297
	4.000	-.00002	.00002	-.00001	-.00007	.00001	-.00002	-.00000	-.00010	-.00003

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8059) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.6000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPOBRK = 55.030  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.100

## PARAMETRIC DATA

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01232	-.01235	.00825	.03781	-.00733	.00575	.00108	.01338	.00341
.01218	-.01214	.00797	.03652	-.00708	.00547	.00103	.01249	.00318
.01222	-.01219	.00782	.03586	-.00695	.00535	.00101	.01246	.00317
-.00002	.00002	-.00005	-.00024	.00005	-.00005	-.00001	-.00012	-.00003

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01239	-.01236	.00819	.03756	-.00728	.00556	.00105	.01323	.00337
.01204	-.01201	.00813	.03725	-.00722	.00535	.00101	.01226	.00312
.01223	-.01219	.00806	.03693	-.00716	.00539	.00101	.01236	.00315
-.00002	.00002	-.00002	-.00008	.00002	-.00002	-.00000	-.00011	-.00003

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01270	-.01266	.00830	.03905	-.00738	.00551	.00104	.01331	.00339
.01244	-.01241	.00842	.03857	-.00748	.00547	.00103	.01259	.00321
.01253	-.01250	.00834	.03912	-.00758	.00537	.00101	.01238	.00315
-.00002	.00002	.00003	.00013	-.00003	-.00002	-.00000	-.00012	-.00003

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01339	-.01335	.00876	.04012	-.00778	.00597	.00112	.01412	.00350
.01292	-.01289	.00856	.03922	-.00761	.00564	.00106	.01318	.00336
.01338	-.01334	.00890	.04080	-.00791	.00572	.00108	.01274	.00325
-.00000	.00000	.00002	.00008	-.00002	-.00003	-.00001	-.00017	-.00004

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01401	-.01397	.00919	.04213	-.00817	.00508	.00114	.01426	.00363
.01305	-.01302	.00867	.03974	-.00771	.00569	.00107	.01316	.00335
.01350	-.01346	.00906	.04153	-.00805	.00573	.00109	.01311	.00334
-.00005	.00006	-.00002	-.00008	.00001	-.00004	-.00001	-.00014	-.00004

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EEBESJ) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
 LPEF = 474.8000 IN.  
 SPEF = 935.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELYN-L = 4.000  
 ELYN-R = -4.000 MACH = .900

RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00959	-.00957	.00594	.02721	-.00528	.00455	.00086	.00985	.00251
.00949	-.00946	.00591	.02710	-.00526	.00451	.00085	.00987	.00251
.00937	-.00935	.00590	.02706	-.00525	.00444	.00084	.00948	.00242
-.00903	.00003	-.00000	-.00002	.00000	-.00001	-.00000	-.00005	-.00001

RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00938	-.00935	.00502	.02759	-.00535	.00443	.00083	.00973	.00242
.00918	-.00916	.00501	.02662	-.00516	.00435	.00082	.00944	.00241
.00912	-.00910	.00603	.02765	-.00535	.00430	.00081	.00949	.00242
-.00903	.00003	.00000	.00001	-.00000	-.00002	-.00000	-.00003	-.00001

RN/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00862	-.00869	.00600	.02748	-.00533	.00419	.00079	.00905	.00231
.00867	-.00865	.00576	.02642	-.00512	.00406	.00076	.00886	.00225
.00869	-.00866	.00607	.02783	-.00540	.00407	.00077	.00867	.00226
-.00900	.00000	.00001	.00004	-.00001	-.00001	-.00000	-.00002	-.00001

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00859	-.00857	.00584	.02677	-.00519	.00414	.00078	.00921	.00235
.00853	-.00851	.00557	.02552	-.00495	.00404	.00076	.00872	.00222
.00859	-.00856	.00578	.02649	-.00514	.00405	.00076	.00864	.00225
.00801	-.00801	-.00000	-.00004	.00001	-.00001	-.00000	-.00005	-.00001

RN/L = 3.55 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00928	-.00866	.00594	.02724	-.00528	.00432	.00081	.00981	.00250
.00959	-.00856	.00572	.02621	-.00508	.00393	.00074	.00887	.00226
.00950	-.00828	.00624	.02658	-.00554	.00410	.00077	.00874	.00223
.00908	-.00808	.00004	.00017	-.00003	-.00003	-.00001	-.00013	-.00003

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D61) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = 10.000 SPDBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = .500

## PARAMETRIC DATA

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-8.000	.00799	-.00797	.00534	.02445	-.00474	.00425	.00380	.00926	.00236
-4.000	.00790	-.00787	.00526	.02409	-.00467	.00433	.00381	.00863	.00220
.000	.00814	-.00812	.00530	.02428	-.00471	.00421	.00379	.00863	.00220
4.000	.00775	-.00773	.00522	.02390	-.00463	.00400	.00375	.00810	.00207
8.000	.00782	-.00780	.00519	.02378	-.00461	.00377	.00371	.00812	.00207
GRADIENT	-.00002	.00002	-.00001	-.00002	.00000	-.00004	-.00001	-.00007	-.00002

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-8.000	.00811	-.00808	.00544	.02494	-.00484	.00437	.00382	.00907	.00231
-4.000	.00779	-.00777	.00535	.02453	-.00476	.00416	.00378	.00859	.00219
.000	.00788	-.00785	.00524	.02400	-.00465	.00395	.00374	.00814	.00208
4.000	.00766	-.00763	.00531	.02434	-.00472	.00393	.00374	.00806	.00205
8.000	.00802	-.00800	.00534	.02445	-.00474	.00395	.00375	.00816	.00208
GRADIENT	-.00002	.00002	-.00001	-.00002	.00000	-.00003	-.00001	-.00007	-.00002

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-8.000	.00789	-.00786	.00561	.02572	-.00499	.00426	.00380	.00902	.00230
-4.000	.00810	-.00809	.00540	.02475	-.00480	.00411	.00377	.00838	.00214
.000	.00765	-.00763	.00526	.02410	-.00467	.00367	.00369	.00793	.00202
4.000	.00799	-.00797	.00542	.02485	-.00482	.00400	.00375	.00829	.00211
8.000	.00818	-.00815	.00536	.02458	-.00477	.00401	.00375	.00823	.00210
GRADIENT	-.00001	.00001	.00000	.00001	-.00000	-.00001	-.00001	-.00001	-.00000

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-8.000	.00783	-.00781	.00557	.02552	-.00495	.00436	.00382	.00914	.00233
-4.000	.00755	-.00753	.00526	.02412	-.00468	.00393	.00374	.00752	.00192
.000	.00761	-.00759	.00504	.02308	-.00447	.00365	.00369	.00742	.00189
4.000	.00792	-.00790	.00530	.02427	-.00471	.00393	.00374	.00821	.00209
8.000	.00825	-.00822	.00532	.02440	-.00473	.00381	.00372	.00863	.00220
GRADIENT	.00005	-.00005	.00000	.00002	-.00000	-.00000	-.00003	.00009	.00002

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

ALPHA = 12.000

BETA  
 -5.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1  
 .00748  
 .00751  
 .00743  
 .00741  
 .00782  
 -.00001

CLM1  
 -.00746  
 -.00749  
 -.00741  
 -.00739  
 -.00780  
 .00001

CN2  
 .00557  
 .00537  
 .00521  
 .00511  
 .00523  
 -.00003

CA2  
 .02555  
 .02459  
 .02386  
 .02341  
 .02395  
 -.00015

CLM2  
 -.00495  
 -.00477  
 -.00463  
 -.00454  
 -.00464  
 .00003

CA3  
 .00428  
 .00406  
 .00370  
 .00373  
 .00361  
 -.00004

CLM3  
 .00360  
 .00376  
 .00070  
 .00070  
 .00368  
 -.00001

CA4  
 .00912  
 .00658  
 .00777  
 .00755  
 .00797  
 -.00013

CLM4  
 .00233  
 .00219  
 .00198  
 .00192  
 .00203  
 -.00003

RUDDER = 10.000  
 BDF\_LAP = 16.300  
 ELVN-R = -4.000  
 SPDBRK = 55.000  
 ELVN-L = 4.000  
 MACH = .600

## PARAMETRIC DATA

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01027  
 .01016  
 .01025  
 -.00000

CLM1  
 -.01024  
 -.01013  
 -.01023  
 .00000

CN2  
 .00675  
 .00673  
 .00671  
 -.00001

CA2  
 .03095  
 .03085  
 .03074  
 -.00003

CLM2  
 -.00600  
 -.00598  
 -.00596  
 .00001

CA3  
 .00473  
 .00456  
 .00446  
 -.00003

CLM3  
 .00089  
 .00086  
 .00084  
 -.00001

CA4  
 .01079  
 .01075  
 .01073  
 -.00001

CLM4  
 .00275  
 .00274  
 .00273  
 -.00000

RUDDER = 5.000  
 BDF\_LAP = 16.300  
 ELVN-R = -4.000  
 SPDBRK = 55.000  
 ELVN-L = -4.000  
 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01045  
 .01044  
 .01050  
 .00001

CLM1  
 -.01042  
 -.01042  
 -.01047  
 -.00001

CN2  
 .00666  
 .00668  
 .00681  
 -.00001

CA2  
 .03145  
 .03151  
 .03121  
 -.00003

CLM2  
 -.00610  
 -.00611  
 -.00605  
 .00001

CA3  
 .00475  
 .00459  
 .00448  
 -.00003

CLM3  
 .00089  
 .00086  
 .00084  
 -.00001

CA4  
 .01101  
 .01096  
 .01096  
 -.00001

CLM4  
 .00280  
 .00279  
 .00279  
 -.00000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8052) ( 23 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = 5.000 SPOSRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01030	-.01027	.00683	.03132	-.00607	.00463	.00687	.01066	.00277
.000	.01024	-.01021	.00674	.03090	-.00599	.00454	.00665	.01056	.00269
4.000	.01045	-.01042	.00657	.03056	-.00593	.00434	.00682	.01077	.00274
GRADIENT	.00002	-.00002	-.00002	-.00009	.00002	-.00004	-.00001	-.00001	-.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01071	-.01069	.00702	.03216	-.00624	.00484	.00691	.01116	.00284
.000	.01039	-.01036	.00680	.03115	-.00604	.00460	.00687	.01068	.00272
4.000	.01067	-.01064	.00688	.03154	-.00612	.00449	.00684	.01081	.00275
GRADIENT	-.00000	.00000	-.00002	-.00008	.00002	-.00004	-.00001	-.00004	-.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01080	-.01077	.00692	.03170	-.00615	.00483	.00691	.01110	.00283
.000	.01052	-.01049	.00684	.03137	-.00608	.00461	.00687	.01093	.00281
4.000	.01085	-.01082	.00731	.03248	-.00649	.00469	.00689	.01126	.00287
GRADIENT	.00001	-.00001	.00005	.00022	-.00004	-.00002	-.00000	.00002	.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01134	-.01131	.00728	.03337	-.00647	.00468	.00692	.01159	.00295
.000	.01133	-.01130	.00735	.03459	-.00671	.00487	.00692	.01163	.00296
4.000	.01142	-.01139	.00756	.03465	-.00672	.00484	.00691	.01140	.00290
GRADIENT	.00001	-.00001	.00003	.00016	-.00003	-.00001	-.00000	-.00002	-.00001





DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EEB054) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

RUDDER = 5.000  
BOFLAP = 16.300  
ELVN-R = -4.000  
MACH = 1.100  
SFDBRK = 55.000  
ELVN-L = -4.000

PARAMETRIC DATA

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01230	-.01226	.00824	.03775	-.00732	.00596	.00112	.01345	.00343
.01204	-.01200	.00787	.03509	-.00700	.00550	.00104	.01276	.00325
.01223	-.01219	.00760	.03481	-.00675	.00537	.00101	.01263	.00322
-.00001	.00001	-.00008	-.00037	.00007	-.00007	-.00001	-.00010	-.00003

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01234	-.01230	.00819	.03755	-.00728	.00585	.00110	.01329	.00339
.01209	-.01206	.00799	.03550	-.00710	.00551	.00104	.01260	.00326
.01250	-.01246	.00755	.03450	-.00671	.00545	.00102	.01263	.00322
.00002	-.00002	-.00008	-.00037	.00007	-.00005	-.00001	-.00008	-.00002

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01259	-.01256	.00830	.03803	-.00737	.00575	.00108	.01317	.00336
.01260	-.01257	.00831	.03807	-.00738	.00570	.00107	.01319	.00336
.01277	-.01273	.00799	.03661	-.00710	.00553	.00104	.01295	.00330
.00002	-.00002	-.00004	-.00018	.00003	-.00003	-.00001	-.00003	-.00001

RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01320	-.01316	.00852	.04085	-.00792	.00610	.00115	.01392	.00355
.01318	-.01314	.00875	.04010	-.00778	.00594	.00112	.01359	.00346
.01345	-.01341	.00858	.03932	-.00762	.00580	.00109	.01346	.00343
.00003	-.00003	-.00004	-.00019	.00004	-.00004	-.00001	-.00006	-.00001

RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01341	-.01337	.00903	.04140	-.00803	.00505	.00114	.01436	.00366
.01277	-.01274	.00872	.03997	-.00775	.00577	.00108	.01364	.00348
.01382	-.01378	.00881	.04039	-.00783	.00599	.00113	.01400	.00357
.00005	-.00005	-.00003	-.00013	.00002	-.00001	-.00000	-.00004	-.00001

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8D65) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

YMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = 5.000 SPCBRK = 55.000  
 BDFLAP = 16.300 ELYN-L = -4.000  
 ELYN-R = -4.000 MACH = .900

## PARAMETRIC DATA

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00919	-.00916	.00608	.02785	-.00540	.00458	.00386	.00971	.00247		
.00928	-.00926	.00587	.02691	-.00522	.00443	.00383	.00971	.00247		
.00935	-.00932	.00552	.02530	-.00491	.00431	.00381	.00916	.00233		
-.00002	.00002	-.00007	-.00032	.00006	-.00003	-.00001	-.00007	-.00002		

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00919	-.00917	.00606	.02776	-.00538	.00433	.00381	.00968	.00247		
.00877	-.00874	.00585	.02683	-.00520	.00435	.00382	.00945	.00241		
.00880	-.00878	.00561	.02570	-.00498	.00424	.00380	.00934	.00235		
-.00005	.00005	-.00006	-.00026	.00005	-.00001	-.00000	-.00006	-.00001		

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00835	-.00882	.00610	.02795	-.00542	.00420	.00379	.00914	.00233		
.00859	-.00866	.00575	.02635	-.00511	.00411	.00377	.00911	.00232		
.00881	-.00878	.00548	.02513	-.00487	.00412	.00378	.00903	.00230		
-.00000	.00000	-.00008	-.00035	.00007	-.00001	-.00000	-.00001	-.00000		

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00861	-.00859	.00590	.02702	-.00524	.00424	.00380	.00917	.00234		
.00846	-.00844	.00560	.02568	-.00498	.00397	.00375	.00889	.00225		
.00841	-.00839	.00532	.02437	-.00473	.00389	.00373	.00875	.00223		
-.00002	.00002	-.00007	-.00033	.00006	-.00004	-.00001	-.00005	-.00001		

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00957	-.00855	.00577	.02645	-.00513	.00439	.00383	.00971	.00247		
.00834	-.00832	.00542	.02485	-.00482	.00385	.00372	.00881	.00224		
.00758	-.00765	.00503	.02306	-.00447	.00374	.00370	.00807	.00206		
-.00011	.00011	-.00009	-.00042	.00008	-.00008	-.00002	-.00020	-.00005		

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA  
 RUDDER = 5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

0A148 -140 A/B/C/R FOREBODY INCREMENTS									
RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = -4.000	CA1	CN1	CA2	CLM1	CN2	CA3	CLM2	CA4	CLM3
BETA	.00832	.00574	.02629	-.00830	.00574	.00438	-.00510	.00897	.00082
-8.000	.00816	.00551	.02526	-.00813	.00551	.00436	-.00490	.00899	.00082
-4.000	.00805	.00540	.02474	-.00803	.00540	.00426	-.00480	.00884	.00084
4.000	.00798	.00522	.02392	-.00795	.00522	.00402	-.00464	.00837	.00076
8.000	.00798	.00499	.02288	-.00796	.00499	.00381	-.00444	.00808	.00072
GRADIENT	-.00302	-.00004	-.00017	.00002	-.00004	-.00004	.00003	-.00008	-.00001
RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = .000	CA1	CN1	CA2	CLM1	CN2	CA3	CLM2	CA4	CLM3
BETA	.00799	.00574	.02632	-.00797	.00574	.00433	-.00510	.00890	.00081
-8.000	.00801	.00545	.02496	-.00799	.00545	.00430	-.00484	.00892	.00081
-4.000	.00800	.00524	.02400	-.00799	.00524	.00405	-.00465	.00851	.00076
4.000	.00811	.00535	.02451	-.00809	.00535	.00408	-.00475	.00827	.00077
8.000	.00809	.00516	.02363	-.00807	.00516	.00403	-.00458	.00828	.00076
GRADIENT	.00001	-.00001	-.00006	-.00001	-.00001	-.00003	.00001	-.00008	-.00001
RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 4.000	CA1	CN1	CA2	CLM1	CN2	CA3	CLM2	CA4	CLM3
BETA	.00812	.00563	.02580	-.00809	.00563	.00432	-.00500	.00898	.00081
-8.000	.00803	.00552	.02575	-.00800	.00552	.00425	-.00499	.00894	.00080
-4.000	.00783	.00536	.02457	-.00780	.00536	.00391	-.00476	.00834	.00074
4.000	.00798	.00518	.02374	-.00796	.00518	.00401	-.00460	.00843	.00075
8.000	.00824	.00502	.02300	-.00821	.00502	.00389	-.00446	.00790	.00073
GRADIENT	-.00001	-.00005	-.00025	.00001	-.00005	-.00003	.00005	-.00007	-.00001
RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 8.000	CA1	CN1	CA2	CLM1	CN2	CA3	CLM2	CA4	CLM3
BETA	.00797	.00568	.02501	-.00794	.00568	.00436	-.00504	.00898	.00082
-8.000	.00782	.00555	.02544	-.00780	.00555	.00413	-.00493	.00898	.00082
-4.000	.00741	.00509	.02331	-.00739	.00509	.00376	-.00452	.00873	.00071
4.000	.00773	.00491	.02249	-.00771	.00491	.00380	-.00436	.00820	.00072
8.000	.00837	.00494	.02262	-.00835	.00494	.00367	-.00439	.00819	.00069
GRADIENT	-.00001	-.00006	-.00037	.00001	-.00006	-.00004	.00007	-.00002	-.00001

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

DATE 09 MAY 76

OA148 -140 A/B/C/R FOREBODY INCREMENTS

(EE9D66) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.8000 IN.  
SCALE = .0300

ALPHA = 12.000  
BETA = -4.000  
GRADIENT = 4.000

RUDDER = 5.000  
BDFLAP = 16.300  
ELVN-R = -4.000

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

CLM1	CLM2	CLM3	CLM4
.00770	.00500	.00081	.00230
.00741	.00484	.00091	.00214
.00711	.00445	.00069	.00197
.00754	.00413	.00070	.00181
.00782	.00417	.00066	.00191
.00802	.00009	.00001	.00004

REFERENCE DATA

SREF = 2630.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.8000 IN.  
SCALE = .0300

ALPHA = -4.000  
BETA = -4.000  
GRADIENT = 4.000

RUDDER = .000  
BDFLAP = 22.500  
ELVN-R = -4.000

PARAMETRIC DATA

CLM1	CLM2	CLM3	CLM4
.00974	.00575	.00091	.00267
.00991	.00582	.00086	.00264
.00997	.00594	.00086	.00252
.00003	.00001	.00001	.00002

RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA = -4.000  
GRADIENT = 4.000

CLM1	CLM2	CLM3	CLM4
.00990	.00599	.00088	.00261
.00985	.00594	.00085	.00260
.00960	.00554	.00083	.00253
.00004	.00004	.00001	.00004

(EE8067) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R FOREBODY INCREMENTS

DATE 08 MAY 76

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
BDFLAP = 22.500 ELVN-L = -4.000  
ELVN-R = -4.000 MACH = .900

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00963	.00552	.02988	-.00579	.00453	.00085	.00980	.00250
-4.000	.00957	.00634	.02905	-.00563	.00442	.00083	.00968	.00247
.000	.00955	.00617	.02830	-.00549	.00436	.00082	.00982	.00250
4.000	.00959	-.00004	-.00020	-.00004	-.00002	-.00000	.00000	.00000
GRADIENT	-.00001							

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00969	.00630	.02889	-.00560	.00471	.00089	.01019	.00260
-4.000	.00949	.00624	.02859	-.00554	.00447	.00084	.00953	.00243
.000	.00939	.00604	.02768	-.00537	.00427	.00080	.00891	.00227
4.000	.00935	-.00003	-.00015	-.00003	-.00005	-.00001	-.00016	-.00004
GRADIENT	-.00004							

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00953	.00643	.02944	-.00571	.00475	.00089	.01046	.00267
-4.000	.00935	.00625	.02865	-.00556	.00450	.00085	.00978	.00249
.000	.00924	.00620	.02842	-.00551	.00450	.00085	.00933	.00238
4.000	.00921	-.00003	-.00013	-.00002	-.00003	-.00001	-.00014	-.00004
GRADIENT	-.00004							

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8DE9) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = .000  
 SDFLAP = 22.500  
 ELVN-R = -4.000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00894	-.00892	.00613	.02810	-.00545	.00468	.00398	.00959	.00244
.00884	-.00892	.00597	.02736	-.00531	.00465	.00388	.00958	.00244
.00913	-.00910	.00598	.02739	-.00531	.00432	.00381	.00945	.00241
.00895	-.00893	.00596	.02730	-.00529	.00438	.00382	.00914	.00233
.00894	-.00892	.00565	.02591	-.00502	.00403	.00376	.00876	.00223
.00901	-.00901	-.00000	-.00001	.00000	-.00003	-.00001	-.00905	-.00001

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00936	-.00894	.00617	.02828	-.00548	.00478	.00390	.00953	.00243
.00926	-.00893	.00603	.02765	-.00536	.00451	.00385	.00941	.00240
.00937	-.00884	.00585	.02682	-.00520	.00436	.00382	.00923	.00235
.00902	-.00899	.00601	.02756	-.00534	.00423	.00380	.00956	.00226
.00832	-.00890	.00584	.02677	-.00519	.00418	.00379	.00935	.00213
.00902	-.00902	-.00000	-.00001	.00000	-.00004	-.00001	-.00907	-.00002

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00897	-.00895	.00623	.02934	-.00553	.00474	.00389	.00952	.00243
.00974	-.00872	.00611	.02801	-.00543	.00458	.00386	.00959	.00244
.00851	-.00849	.00593	.02674	-.00518	.00427	.00380	.00882	.00225
.00895	-.00893	.00586	.02686	-.00521	.00428	.00381	.00895	.00228
.00893	-.00881	.00571	.02616	-.00507	.00403	.00376	.00829	.00211
.00903	-.00903	-.00003	-.00014	.00003	-.00004	-.00001	-.00908	-.00002

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 9.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00886	-.00893	.00619	.02936	-.00550	.00463	.00387	.00991	.00250
.00866	-.00864	.00603	.02763	-.00536	.00408	.00387	.00937	.00239
.00843	-.00841	.00574	.02632	-.00510	.00408	.00377	.00842	.00215
.00894	-.00892	.00568	.02604	-.00505	.00416	.00374	.00874	.00223
.00888	-.00886	.00563	.02578	-.00500	.00391	.00374	.00840	.00214
.00904	-.00903	-.00004	-.00020	.00004	-.00006	-.00001	-.00908	-.00002

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R FOREBODY INCREMENTS

(EE8068) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT.  
 LPEF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = .000  
 BDFLAP = 22.500  
 ELVN-R = -4.000  
 ELVN-L = 55.000  
 MACH = -4.600

## PARAMETRIC DATA

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CA1

.00861

.00844

.00805

.00807

.00851

.00005

CLM1

-.00859

-.00841

-.00803

-.00804

-.00849

.00005

CN2

.00613

.00597

.00561

.00518

.00551

-.00010

CA2

.02807

.02734

.02570

.02374

.02526

-.00045

CLM2

-.00544

-.00530

-.00498

-.00460

-.00490

.00009

CA3

.00477

.00492

.00413

.00420

.00371

-.00009

CLM3

.00090

.00093

.00078

.00079

.00070

-.00002

CA4

.01022

.00967

.00859

.00780

.00787

-.00023

CLM4

.00261

.00246

.00219

.00199

.00201

-.00006

## REFERENCE DATA

SREF = 2590.0000 SQ.FT.  
 LPEF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

RUDDER = .000  
 BDFLAP = 22.500  
 ELVN-R = -10.000  
 ELVN-L = 55.000  
 MACH = -10.900

## PARAMETRIC DATA

0A148 -140 A/B/C FOREBODY INCREMENTS

(EE8069) ( 23 AUG 75 )

RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CA1

.00977

.00956

.00968

.00977

-.00001

CLM1

-.00974

-.00954

-.00965

.00001

CN2

.00648

.00613

.00598

-.00006

CA2

.02971

.02808

.02739

-.00029

CLM2

-.00576

-.00545

-.00531

.00006

CA3

.00467

.00446

.00443

-.00003

CLM3

.00088

.00084

.00083

-.00001

CA4

.01024

.01013

.00976

-.00006

CLM4

.00261

.00258

.00249

-.00002

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CA1

.00985

.00976

.00977

-.00001

CLM1

-.00982

-.00973

-.00975

.00001

CN2

.00644

.00627

.00612

-.00004

CA2

.02950

.02874

.02804

-.00018

CLM2

-.00572

-.00557

-.00544

.00004

CA3

.00463

.00447

.00435

-.00004

CLM3

.00087

.00084

.00082

-.00001

CA4

.01006

.00980

.00978

-.00003

CLM4

.00256

.00250

.00249

-.00001

DATE 08 MAY 75

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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OA148 -140 A/B/C FOREBODY INCREMENTS

(EES059) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.    XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN.        YMRP = .0000 IN. YO  
 BREF = 936.6800 IN.        ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000    SPDBRK = 55.000  
 BDFLAP = 22.500    ELVN-L = -10.000  
 ELVN-R = -10.000    MACH = 900

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CA1

.00986

.00981

.00973

-.00002

CLM1

-.00983

.00986

.00981

.00973

CN2

.00556

.00560

.00556

-.00004

CA2

.03008

.02896

.02859

-.00017

CLM2

-.00593

-.00560

-.00556

.00003

CA3

.00465

.00445

.00436

-.00004

CLM3

.00087

.00084

.00082

-.00001

CA4

.01007

.00992

.00948

-.00007

CLM4

.00257

.00253

.00242

-.00002

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CA1

.00967

.00980

.00967

-.00000

CLM1

-.00964

.00967

.00964

.00960

CN2

.00542

.00544

.00536

-.00001

CA2

.02343

.02953

.02913

-.00004

CLM2

-.00571

-.00573

-.00565

.00031

CA3

.00494

.00480

.00454

-.00005

CLM3

.00093

.00090

.00085

-.00001

CA4

.01032

.01002

.00899

-.00017

CLM4

.00263

.00255

.00229

-.00004

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CA1

.00979

.00945

.00911

-.00009

CLM1

-.00976

.00942

.00909

.00908

CN2

.00647

.00623

.00612

-.00004

CA2

.02963

.02855

.02806

-.00020

CLM2

-.00575

-.00554

-.00544

.00004

CA3

.00489

.00461

.00417

-.00009

CLM3

.00092

.00087

.00078

-.00002

CA4

.01049

.00980

.00876

-.00022

CLM4

.00267

.00250

.00223

-.00005



(EE8D70) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C FOREBODY INCREMENTS

DATE 08 MAY 76

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.6000 IN.  
BREF = 936.6900 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

PARAMETRIC DATA  
RUDDER = .000 SPOBRK = 55.000  
BDFLAP = 22.500 ELVN-L = -10.000  
ELVN-R = -10.000 MACH = .600

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00894	-.00891	.00623	.02856	-.00554	.00487	.00092	.00952	.00243
-8.000	.00894	-.00906	.00516	.02822	-.00547	.00467	.00088	.00969	.00247
-4.000	.00899	-.00909	.00608	.02786	-.00540	.00453	.00085	.00985	.00251
.000	.00911	-.00894	.00603	.02763	-.00536	.00426	.00080	.00899	.00229
4.000	.00895	-.00895	.00533	.02670	-.00518	.00412	.00078	.00793	.00202
8.000	.00897	-.00892	-.00007	-.00007	-.00001	-.00005	-.00001	-.00009	-.00002
GRADIENT	-.00002	.00002	-.00002	-.00007	.00001	-.00005	-.00001	-.00009	-.00002

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00901	-.00898	.00621	.02847	-.00552	.00491	.00092	.00971	.00247
-8.000	.00901	-.00894	.00611	.02798	-.00543	.00476	.00090	.00962	.00245
-4.000	.00897	-.00895	.00598	.02742	-.00532	.00441	.00083	.00951	.00242
.000	.00899	-.00892	.00603	.02761	-.00535	.00421	.00079	.00889	.00226
4.000	.00905	-.00902	.00589	.02701	-.00524	.00422	.00079	.00803	.00205
8.000	.00906	-.00903	-.00001	-.00005	-.00001	-.00007	-.00001	-.00009	-.00002
GRADIENT	.00002	-.00002	-.00001	-.00005	.00001	-.00007	-.00001	-.00009	-.00002

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00996	-.00893	.00626	.02870	-.00556	.00496	.00093	.00987	.00252
-8.000	.00894	-.00892	.00607	.02783	-.00540	.00480	.00090	.00958	.00247
.000	.00879	-.00877	.00602	.02761	-.00535	.00436	.00082	.00893	.00228
4.000	.00912	-.00910	.00602	.02760	-.00535	.00433	.00081	.00860	.00219
8.000	.00904	-.00902	.00593	.02718	-.00527	.00415	.00078	.00804	.00205
GRADIENT	.00002	-.00002	-.00001	-.00003	.00001	-.00006	-.00001	-.00013	-.00003

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.00912	-.00910	.00638	.02824	-.00567	.00494	.00093	.01014	.00255
-8.000	.00894	-.00892	.00609	.02792	-.00541	.00489	.00092	.01002	.00235
-4.000	.00866	-.00863	.00593	.02716	-.00527	.00478	.00090	.00912	.00232
.000	.00901	-.00897	.00602	.02757	-.00535	.00470	.00088	.00907	.00231
4.000	.00901	-.00899	.00604	.02769	-.00537	.00407	.00077	.00822	.00209
8.000	.00901	-.00901	-.00001	-.00004	-.00001	-.00002	-.00000	-.00012	-.00003
GRADIENT	.00001	-.00001	-.00001	-.00004	.00001	-.00002	-.00000	-.00012	-.00003

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(EE8D70) ( 23 AUG 75 )

0A148 -140 A/B/C FOREBODY INCREMENTS

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = 12.000  
 BETA = -8.000  
 GAMMA = -4.000  
 DELTA = 4.000  
 EPSILON = 8.000  
 ZETA = 0.000  
 GRADIENT

PARAMETRIC DATA

RUDDER = .000 ST = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00991	.00889	.00628	.02880	-.00558	.02501	.00094	.01059	.00270
.00873	-.00870	.00611	.02800	-.00543	.00541	.00122	.00995	.00253
.00859	.00537	.00591	.02711	-.00526	.00437	.00086	.00876	.00224
.00874	-.00872	.00602	.02758	-.00535	.00425	.00080	.00747	.00190
.00900	.00637	.00582	.02665	-.00517	.00396	.00075	.00754	.00192
.00900	.00600	-.00001	-.00005	.00001	-.00014	-.00003	-.00031	-.00008

(EE8D71) ( 23 AUG 75 )

0A148 -140 A/B/C FOREBODY INCREMENTS

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01033	-.01030	.00684	.03137	-.00608	.00467	.00088	.01061	.00270
.01023	-.01021	.00659	.03064	-.00594	.00462	.00087	.01045	.00266
.01036	-.01003	.00652	.02987	-.00579	.00446	.00084	.01033	.00263
-.00003	.00003	-.00004	-.00019	.00004	-.00003	-.00000	-.00004	-.00001

ALPHA = .000  
 BETA = -4.000  
 GAMMA = .000  
 DELTA = 4.000  
 EPSILON = 0.000  
 ZETA = 0.000  
 GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01065	-.01062	.00709	.03249	-.00630	.00490	.00092	.01101	.00291
.01043	-.01041	.00686	.03144	-.00610	.00470	.00088	.01081	.00276
.01054	-.01051	.00683	.03130	-.00607	.00465	.00088	.01085	.00276
-.00001	.00001	-.00003	-.00015	.00003	-.00003	-.00001	-.00002	-.00001

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01083	-.01080	.00712	.03261	-.00532	.00485	.00091	.01120	.00285
.000	.01042	-.01039	.00693	.03176	-.00516	.00464	.00087	.01073	.00274
4.000	.01076	-.01073	.00690	.03164	-.00514	.00443	.00083	.01093	.00279
GRADIENT	-.00001	.00001	-.00003	-.00012	.00002	-.00005	-.00001	-.00003	-.00001
RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01092	-.01089	.00718	.03293	-.00638	.00502	.00094	.01139	.00290
.000	.01079	-.01076	.00713	.03269	-.00634	.00477	.00090	.01100	.00280
4.000	.01100	-.01097	.00708	.03245	-.00629	.00444	.00084	.01112	.00283
GRADIENT	.00001	-.00001	-.00001	-.00006	.00001	-.00007	-.00001	-.00003	-.00001
RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01123	-.01120	.00720	.03301	-.00640	.00508	.00096	.01151	.00293
.000	.01076	-.01073	.00700	.03207	-.00622	.00473	.00089	.01122	.00286
4.000	.01107	-.01104	.00732	.03355	-.00650	.00465	.00088	.01119	.00285
GRADIENT	-.00002	.00002	.00001	.00007	-.00001	-.00005	-.00001	-.00004	-.00001
RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 16.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA									
-4.000	.01115	-.01112	.00734	.03365	-.00653	.00504	.00095	.01184	.00302
.000	.01144	-.01141	.00749	.03433	-.00666	.00490	.00092	.01165	.00297
4.000	.01110	-.01107	.00740	.03391	-.00658	.00482	.00091	.01166	.00297
GRADIENT	-.00001	.00001	.00001	.00003	-.00001	-.00003	-.00001	-.00002	-.00001

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C FOREBODY INCREMENTS

(EEED72) 23 AUG 75

## REFERENCE DATA

STEP = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6500 IN.  
 SCALE = .0300

RUDDER = -5.000  
 BDFLAP = 16.300  
 ELVN-R = -10.000  
 SPDRK = 55.000  
 ELVN-L = -10.000  
 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
-4.000	.000	.01148	-.01145	.00783	.03588	-.00586	.00550	.00103	.01220	.00311
.000	.000	.01118	-.01115	.00733	.03359	-.00651	.00530	.00100	.01130	.00268
.000	.000	.01129	-.01125	.00722	.03307	-.00641	.00507	.00095	.01135	.00269
GRADIENT		-.00003	.00003	-.00008	-.00035	.00007	-.00005	-.00001	-.00011	-.00003

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.000	.000	.01162	-.01158	.00797	.03654	-.00709	.00538	.00101	.01211	.00309
.000	.000	.01151	-.01148	.00761	.03488	-.00676	.00536	.00101	.01157	.00295
.000	.000	.01160	-.01157	.00745	.03412	-.00662	.00519	.00098	.01183	.00301
GRADIENT		-.00000	.00000	-.00007	-.00030	.00006	-.00002	-.00000	-.00004	-.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
4.000	.000	.01193	-.01187	.00805	.03691	-.00716	.00545	.00103	.01205	.00307
.000	.000	.01195	-.01193	.00804	.03693	-.00714	.00532	.00100	.01199	.00305
.000	.000	.01202	-.01199	.00772	.03538	-.00686	.00501	.00094	.01187	.00302
GRADIENT		.00002	-.00002	-.00004	-.00019	.00004	-.00006	-.00001	-.00002	-.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
8.000	.000	.01239	-.01236	.00823	.03770	-.00731	.00572	.00108	.01260	.00321
.000	.000	.01231	-.01227	.00818	.03750	-.00727	.00543	.00102	.01247	.00318
.000	.000	.01249	-.01245	.00807	.03627	-.00717	.00517	.00097	.01240	.00315
GRADIENT		.00001	-.00001	-.00002	-.00009	.00002	-.00007	-.00001	-.00002	-.00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
12.000	.000	.01283	-.01279	.00849	.03889	-.00754	.00587	.00110	.01315	.00335
.000	.000	.01242	-.01239	.00810	.03714	-.00720	.00553	.00104	.01260	.00321
.000	.000	.01277	-.01273	.00837	.03835	-.00744	.00521	.00095	.01278	.00326
GRADIENT		-.00001	.00001	-.00001	-.00007	.00001	-.00008	-.00002	-.00005	-.00001

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C FOREBODY INCREMENTS

(EESD73) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 EREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

CA1 .01265  
 .01189  
 .01247  
 -.00002  
 GRADIENT

CA2 .03827  
 .03516  
 .03521  
 -.00039  
 GRADIENT

CA3 .00596  
 .00550  
 .00555  
 -.00005  
 GRADIENT

CA4 .01304  
 .01219  
 .01266  
 -.00005  
 GRADIENT

CLM1 -.01262  
 -.01186  
 -.01244  
 .00002  
 GRADIENT

CLM2 -.00742  
 -.00682  
 -.00683  
 .00007  
 GRADIENT

CLM3 .00112  
 .00103  
 .00104  
 -.00001  
 GRADIENT

CLM4 .00332  
 .00311  
 .00323  
 -.00001  
 GRADIENT

RUDDER = -5.000 SPDECK = 55.000  
 BOFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.100

## PARAMETRIC DATA

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

CA1 .01263  
 .01220  
 .01238  
 -.00003  
 GRADIENT

CA2 .03870  
 .03580  
 .03538  
 -.00041  
 GRADIENT

CA3 .00598  
 .00555  
 .00548  
 -.00005  
 GRADIENT

CA4 .01268  
 .01204  
 .01235  
 -.00007  
 GRADIENT

CLM1 -.01260  
 -.01217  
 -.01234  
 .00003  
 GRADIENT

CLM2 -.00750  
 -.00714  
 -.00695  
 .00009  
 GRADIENT

CLM3 .00112  
 .00104  
 .00103  
 -.00001  
 GRADIENT

CLM4 .00328  
 .00307  
 .00315  
 -.00002  
 GRADIENT

CA1 .01289  
 .01259  
 .01263  
 -.00003  
 GRADIENT

CA2 .03933  
 .03851  
 .03740  
 -.00024  
 GRADIENT

CA3 .00605  
 .00561  
 .00542  
 -.00008  
 GRADIENT

CA4 .01318  
 .01220  
 .01219  
 -.00012  
 GRADIENT

CLM1 -.01286  
 -.01256  
 -.01260  
 .00003  
 GRADIENT

CLM2 -.00763  
 -.00747  
 -.00725  
 .00005  
 GRADIENT

CLM3 .00114  
 .00105  
 .00102  
 -.00001  
 GRADIENT

CLM4 .00336  
 .00311  
 .00311  
 -.00003  
 GRADIENT

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

CA1 .01352  
 .01318  
 .01350  
 -.00000  
 GRADIENT

CA2 .04194  
 .04005  
 .04013  
 -.00023  
 GRADIENT

CA3 .00641  
 .00584  
 .00569  
 -.00010  
 GRADIENT

CA4 .01407  
 .01279  
 .01265  
 -.00018  
 GRADIENT

CLM1 -.01348  
 -.01314  
 -.01346  
 .00000  
 GRADIENT

CLM2 -.00813  
 -.00777  
 -.00778  
 .00004  
 GRADIENT

CLM3 .00121  
 .00113  
 .00109  
 -.00002  
 GRADIENT

CLM4 .00358  
 .00326  
 .00323  
 -.00004  
 GRADIENT

CA1 .01390  
 .01354  
 .01397  
 .00002  
 GRADIENT

CA2 .04246  
 .04111  
 .04141  
 -.00013  
 GRADIENT

CA3 .00532  
 .00508  
 .00571  
 -.00009  
 GRADIENT

CA4 .01425  
 .01343  
 .01347  
 -.00016  
 GRADIENT

CLM1 -.01376  
 -.01351  
 -.01393  
 -.00002  
 GRADIENT

CLM2 -.00823  
 -.00797  
 -.00803  
 .00003  
 GRADIENT

CLM3 .00119  
 .00114  
 .00109  
 -.00001  
 GRADIENT

CLM4 .00363  
 .00342  
 .00343  
 -.00002  
 GRADIENT

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

CA1 .01390  
 .01354  
 .01397  
 .00002  
 GRADIENT

CA2 .04246  
 .04111  
 .04141  
 -.00013  
 GRADIENT

CA3 .00532  
 .00508  
 .00571  
 -.00009  
 GRADIENT

CA4 .01425  
 .01343  
 .01347  
 -.00016  
 GRADIENT

CLM1 -.01376  
 -.01351  
 -.01393  
 -.00002  
 GRADIENT

CLM2 -.00823  
 -.00797  
 -.00803  
 .00003  
 GRADIENT

CLM3 .00119  
 .00114  
 .00109  
 -.00001  
 GRADIENT

CLM4 .00363  
 .00342  
 .00343  
 -.00002  
 GRADIENT

CA1 .01390  
 .01354  
 .01397  
 .00002  
 GRADIENT

CA2 .04246  
 .04111  
 .04141  
 -.00013  
 GRADIENT

CA3 .00532  
 .00508  
 .00571  
 -.00009  
 GRADIENT

CA4 .01425  
 .01343  
 .01347  
 -.00016  
 GRADIENT

CLM1 -.01376  
 -.01351  
 -.01393  
 -.00002  
 GRADIENT

CLM2 -.00823  
 -.00797  
 -.00803  
 .00003  
 GRADIENT

CLM3 .00119  
 .00114  
 .00109  
 -.00001  
 GRADIENT

CLM4 .00363  
 .00342  
 .00343  
 -.00002  
 GRADIENT

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

CA1 .01390  
 .01354  
 .01397  
 .00002  
 GRADIENT

CA2 .04246  
 .04111  
 .04141  
 -.00013  
 GRADIENT

CA3 .00532  
 .00508  
 .00571  
 -.00009  
 GRADIENT

CA4 .01425  
 .01343  
 .01347  
 -.00016  
 GRADIENT

CLM1 -.01376  
 -.01351  
 -.01393  
 -.00002  
 GRADIENT

CLM2 -.00823  
 -.00797  
 -.00803  
 .00003  
 GRADIENT

CLM3 .00119  
 .00114  
 .00109  
 -.00001  
 GRADIENT

CLM4 .00363  
 .00342  
 .00343  
 -.00002  
 GRADIENT

CA1 .01390  
 .01354  
 .01397  
 .00002  
 GRADIENT

CA2 .04246  
 .04111  
 .04141  
 -.00013  
 GRADIENT

CA3 .00532  
 .00508  
 .00571  
 -.00009  
 GRADIENT

CA4 .01425  
 .01343  
 .01347  
 -.00016  
 GRADIENT

CLM1 -.01376  
 -.01351  
 -.01393  
 -.00002  
 GRADIENT

CLM2 -.00823  
 -.00797  
 -.00803  
 .00003  
 GRADIENT

CLM3 .00119  
 .00114  
 .00109  
 -.00001  
 GRADIENT

CLM4 .00363  
 .00342  
 .00343  
 -.00002  
 GRADIENT



## REFERENCE DATA

360.000	SQ.FT.	XMRP	=	1076.6800	IN.	XO
447.600	IN.	YMRP	=	.0000	IN.	YO
326.6800	IN.	ZMRP	=	375.0000	IN.	ZO

ERN'L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

4,214 = -4,000 BETA

CLM3	CA4	CLM4
.00082	.00883	.00225
.00281	.00834	.00228
.00080	.00912	.00232
.00076	.00854	.00218
.00069	.00794	.00202
.00061	-.00095	-.00001

RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

$$\text{ALPHA} = \text{BETA} \cdot \text{COO}$$

CLM3	CA4	CLM4
.00084	.00892	.00227
.00081	.00908	.00231
.00076	.00955	.00218
.00073	.00810	.00305
.00072	.00768	.00196
.00001	-.00012	-.00003

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

A\_PHA = 4.000  
EET4

CLM3	CA4	CLM4
.00084	.00683	.00225
.00080	.00637	.00229
.00071	.00607	.00206
.00075	.00933	.00212
.00071	.00773	.00197
.00001	-.00038	-.00002

RY/L =	4.87	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

A\_Plan = B.C.C  
C.C.T.A

CLM3	CA4	CLM4
.00094	.00915	.00233
.00081	.00850	.00217
.00072	.00694	.00177
.00075	.00752	.00192
.00063	.00765	.00200
.00001	-.00012	-.00003

DATE 09 MAY 76

TABULATED FORCE DATA - OAI48 ( AMES 11-073-1 )

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OAI48 -140 A/B/C FOREBODY INCREMENTS

(EE8075) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.6000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

RUDDER = -5.000  
 BDFLAP = 16.300  
 ELVN-R = -10.000  
 MACH = .500

## PARAMETRIC DATA

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

CA1  
 .00812  
 .00785  
 .00747  
 .00763  
 .00842  
 .00003

CLM1

CN2

.00810  
 .00587  
 .00537  
 .00518  
 .00761  
 .00840  
 .00003

CA2

CLM2

.02689  
 .02463  
 .02373  
 .02266  
 .02276  
 .00025

CA3

CLM3

.00454  
 .00439  
 .00387  
 .00301  
 .00346  
 .00010

CA4

CLM4

.00964  
 .00933  
 .00718  
 .00250  
 .00279  
 .00002

CLM4

.00248  
 .00212  
 .00183  
 .00166  
 .00173  
 .00006

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.6000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

RUDDER = -10.000  
 BDFLAP = -11.700  
 ELVN-L = 10.000  
 MACH = .400

## PARAMETRIC DATA

OAI48 -140 A/B/C FOREBODY INCREMENTS

(EE8075) ( 23 AUG 75 )

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

CA1  
 .01033  
 .01039  
 .01033  
 .01033  
 .01033

CLM1

CN2

.01030  
 .00568  
 .01651  
 .00555  
 .00000

CA2

CLM2

.03063  
 .03028  
 .03047  
 .03002  
 .00000

CA3

CLM3

.00455  
 .00434  
 .00430  
 .00003  
 .00000

CA4

CLM4

.01022  
 .01033  
 .01074  
 .00001  
 .00000

CLM4

.00260  
 .00263  
 .00264  
 .00260  
 .00260

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

BETA

CA1  
 .01007  
 .01003  
 .01003  
 .01003  
 .01003

CLM1

CN2

.00677  
 .00673  
 .00678  
 .00000  
 .00000

CA2

CLM2

.01103  
 .00598  
 .00601  
 .00000  
 .00000

CA3

CLM3

.00436  
 .00432  
 .00432  
 .00001  
 .00000

CA4

CLM4

.01003  
 .00988  
 .01039  
 .00004  
 .00000

CLM4

.00255  
 .00252  
 .00265  
 .00265  
 .00265



DATE 28 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C FOREBODY INCREMENTS

(EE8D76) ( 23 AUG 75 )

## REFERENCE DATA

REF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LEFF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRFF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = -10.000 SPOSRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .00988  
 .01005  
 .01045  
 .00007

CLM1  
 -.00985  
 -.01002  
 -.01042  
 -.00007

CN2  
 .00575  
 .02996  
 .03009  
 -.00002

CA2  
 .03095  
 .02996  
 .03009  
 -.00002

CA3  
 .00428  
 .00420  
 .00426  
 -.00000

CLM2  
 -.00600  
 -.00581  
 -.00587  
 .00002

CA4  
 .00970  
 .01000  
 .01028  
 .00007

CLM3  
 .00081  
 .00079  
 .00080  
 -.00000

CLM4  
 .00247  
 .00255  
 .00262  
 .00002

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .00987  
 .00956  
 .01051  
 .00008

CLM1  
 -.00984  
 -.00984  
 -.01048  
 -.00008

CN2  
 .00663  
 .00644  
 .00675  
 .00002

CA2  
 .03039  
 .02953  
 .03095  
 .00007

CA3  
 .00439  
 .00421  
 .00439  
 -.00000

CLM2  
 -.00589  
 -.00573  
 -.00600  
 -.00001

CA4  
 .01015  
 .01020  
 .01053  
 .00005

CLM3  
 .00083  
 .00079  
 .00083  
 -.00000

CLM4  
 .00259  
 .00260  
 .00268  
 .00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01016  
 .01028  
 .01043  
 .00003

CLM1  
 -.01013  
 -.01025  
 -.01040  
 -.00003

CN2  
 .00663  
 .00668  
 .00697  
 .00004

CA2  
 .03039  
 .03059  
 .03193  
 .00019

CA3  
 .00444  
 .00440  
 .00442  
 -.00000

CLM2  
 -.00589  
 -.00593  
 -.00619  
 -.00004

CA4  
 .01048  
 .01076  
 .01069  
 .00003

CLM3  
 .00083  
 .00083  
 .00083  
 -.00000

CLM4  
 .00267  
 .00274  
 .00272  
 .00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .01044  
 .01064  
 .01060  
 .00002

CLM1  
 -.01041  
 -.01061  
 -.01057  
 -.00002

CN2  
 .00694  
 .00707  
 .00728  
 .00004

CA2  
 .03182  
 .03238  
 .03334  
 .00019

CA3  
 .00461  
 .00477  
 .00472  
 .00001

CLM2  
 -.00617  
 -.00628  
 -.00646  
 -.00004

CA4  
 .01071  
 .01137  
 .01130  
 .00007

CLM3  
 .00087  
 .00090  
 .00089  
 .00000

CLM4  
 .00273  
 .00290  
 .00288  
 .00002

DATE 08 MAY 76

TABULATED FORCE DATA - OAI48 ( AMES 11-073-1 )

PAGE 506

OAI48 -140 A/B/C FOREBODY INCREMENTS

(EE8077) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.000 SQ. FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = -10.000 SPDRK = .000  
 BDFLAP = -11.700 ELYN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01112 CLM1 .00745 CA2 .03412 CLM2 -.00662 CA3 .00489 CLM3 .00092 CA4 .01048 CLM4 .00267  
 .01100 .00740 .03390 -.00657 .00476 .00090 .01092 .00278  
 .01122 .00739 .03389 -.00657 .00464 .00087 .01120 .00285  
 .00001 -.00001 -.00003 .00001 -.00003 -.00001 .00009 .00002

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01075 CLM1 .00720 CA2 .03336 CLM2 -.00647 CA3 .00464 CLM3 .00087 CA4 .01028 CLM4 .00262  
 .01093 .00720 .03300 -.00640 .00452 .00085 .01075 .00274  
 .01126 .00730 .03347 -.00649 .00459 .00086 .01113 .00284  
 .00006 -.00006 .00001 .00000 -.00001 -.00000 .00011 .00003

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01064 CLM1 .00726 CA2 .03329 CLM2 -.00646 CA3 .00458 CLM3 .00086 CA4 .01078 CLM4 .00275  
 .01089 .00694 .03180 -.00617 .00442 .00083 .01103 .00281  
 .01139 .00720 .03302 -.00640 .00460 .00086 .01112 .00283  
 .00009 -.00009 -.00003 .00001 .00000 .00000 .00004 .00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01076 CLM1 .00728 CA2 .03336 CLM2 -.00647 CA3 .00471 CLM3 .00089 CA4 .01121 CLM4 .00286  
 .01052 .00708 .03247 -.00630 .00461 .00087 .01114 .00284  
 .01134 .00730 .03343 -.00648 .00475 .00090 .01154 .00294  
 .00007 -.00007 .00001 .00000 .00001 .00000 .00004 .00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 .000  
 GRADIENT

CA1 .01125 CLM1 .00754 CA2 .03455 CLM2 -.00670 CA3 .00494 CLM3 .00093 CA4 .01181 CLM4 .00301  
 .01133 .00726 .03326 -.00645 .00493 .00093 .01176 .00300  
 .01150 .00770 .03527 -.00684 .00486 .00091 .01186 .00302  
 .00003 -.00003 .00009 .00002 -.00002 -.00000 .00001 .00000

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

DATE 08 MAY 75

(EE8078) ( 23 AUG 75 )

0A148 -140 A/B/C FOREBODY INCREMENTS

PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.100

REFERENCE DATA

SREF = 2594.000 SQ.FT.  
 LREF = 474.800 IN.  
 TREF = 935.800 IN.  
 SCALE = 0.000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01183	-.01179	.00760	.03485	-.00676	.00443	.03083	.01070	.00273
-4.000	.01171	-.01168	.00755	.03462	-.00671	.00448	.00084	.01116	.00294
.000	.01221	-.01218	.00795	.03644	-.00707	.00485	.00091	.01190	.00303
GRADIENT	.00005	-.00005	.00004	.00020	-.00004	.00005	.00001	.00015	.00004

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01129	-.01126	.00728	.03335	-.00647	.00438	.00082	.01042	.00266
-4.000	.01126	-.01123	.00731	.03350	-.00650	.00433	.00082	.01067	.00272
.000	.01164	-.01161	.00758	.03474	-.00674	.00464	.00087	.01121	.00286
GRADIENT	.00004	-.00004	.00004	.00017	-.00003	.00003	.00001	.00010	.00003

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01137	-.01133	.00739	.03386	-.00657	.00448	.00084	.01035	.00264
-4.000	.01119	-.01115	.00726	.03325	-.00645	.00438	.00082	.01078	.00275
.000	.01167	-.01163	.00751	.03441	-.00667	.00455	.00086	.01117	.00285
GRADIENT	.00004	-.00004	.00002	.00007	-.00001	.00001	.00000	.00010	.00003

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01148	-.01145	.00749	.03430	-.00665	.00470	.00088	.01101	.00281
-4.000	.01144	-.01141	.00753	.03451	-.00669	.00469	.00088	.01128	.00287
.000	.01189	-.01184	.00773	.03540	-.00686	.00483	.00091	.01159	.00295
GRADIENT	.00005	-.00005	.00003	.00014	-.00003	.00002	.00000	.00007	.00002

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BETA	.01179	-.01175	.00780	.03574	-.00693	.00510	.00096	.01119	.00285
-4.000	.01204	-.01201	.00811	.03719	-.00721	.00515	.00097	.01230	.00313
.000	.01215	-.01211	.00778	.03567	-.00692	.00502	.00094	.01241	.00316
GRADIENT	.00004	-.00004	-.00000	-.00001	.00000	-.00001	-.00000	.00015	.00004

0A148 -140 A/B/C FOREBODY INCREMENTS

(EE8D79) ( 23 AUG 75 )

## REFERENCE DATA

XREF = 2690.0000 SQ.FT.  
 YREF = 474.6000 IN.  
 ZREF = 936.6000 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000  
 BDFLAP = -11.700  
 ELVN-L = 10.000  
 ELVN-R = -10.000  
 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA1  
 .00681  
 .00676  
 .00672  
 -.00001  
 CLM1  
 -.00679  
 -.00674  
 -.00670  
 .00001  
 CN2  
 .00471  
 .00500  
 .00523  
 .00007  
 CA2  
 .02157  
 .02290  
 .02396  
 .00030  
 CLM2  
 -.00418  
 -.00444  
 -.00465  
 -.00006  
 CA3  
 .00255  
 .00300  
 .00318  
 .00008  
 CLM3  
 .00048  
 .00055  
 .00060  
 .00001  
 CA4  
 .00640  
 .00572  
 .00722  
 .00010  
 CLM4  
 .00163  
 .00171  
 .00184  
 .00003

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 .000  
 .000  
 .000  
 .000  
 GRADIENT

CA1  
 .00669  
 .00648  
 .00685  
 .00002  
 CLM1  
 -.00667  
 -.00646  
 -.00664  
 -.00002  
 CN2  
 .00450  
 .00454  
 .00516  
 .00008  
 CA2  
 .02062  
 .02082  
 .02365  
 .00038  
 CLM2  
 -.00400  
 -.00404  
 -.00459  
 -.00007  
 CA3  
 .00260  
 .00283  
 .00307  
 .00006  
 CLM3  
 .00049  
 .00053  
 .00058  
 .00001  
 CA4  
 .00595  
 .00621  
 .00693  
 .00012  
 CLM4  
 .00152  
 .00159  
 .00177  
 .00003

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 .000  
 .000  
 .000  
 .000  
 GRADIENT

CA1  
 .00645  
 .00610  
 .00681  
 .00004  
 CLM1  
 -.00644  
 -.00608  
 -.00679  
 -.00004  
 CN2  
 .00443  
 .00444  
 .00493  
 .00006  
 CA2  
 .02029  
 .02036  
 .02257  
 .00028  
 CLM2  
 -.00393  
 -.00395  
 -.00438  
 -.00006  
 CA3  
 .00244  
 .00265  
 .00315  
 .00009  
 CLM3  
 .00046  
 .00050  
 .00059  
 .00002  
 CA4  
 .00542  
 .00599  
 .00698  
 .00018  
 CLM4  
 .00139  
 .00150  
 .00175  
 .00005

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 9.000

BETA  
 -9.000  
 .000  
 .000  
 .000  
 GRADIENT

CA1  
 .00609  
 .00551  
 .00596  
 .00007  
 CLM1  
 -.00607  
 -.00649  
 -.00664  
 -.00007  
 CN2  
 .00444  
 .00455  
 .00462  
 .00005  
 CA2  
 .02037  
 .02064  
 .02310  
 .00022  
 CLM2  
 -.00355  
 -.00404  
 -.00428  
 -.00004  
 CA3  
 .00233  
 .00262  
 .00295  
 .00008  
 CLM3  
 .00044  
 .00047  
 .00055  
 .00001  
 CA4  
 .00539  
 .00575  
 .00641  
 .00013  
 CLM4  
 .00137  
 .00145  
 .00163  
 .00003

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 17.000

BETA  
 -17.000  
 .000  
 .000  
 .000  
 GRADIENT

CA1  
 .00662  
 .00599  
 .00572  
 .00004  
 CLM1  
 -.00660  
 -.00696  
 -.00710  
 -.00004  
 CN2  
 .00455  
 .00466  
 .00503  
 .00003  
 CA2  
 .02021  
 .02079  
 .02321  
 .00012  
 CLM2  
 -.00451  
 -.00442  
 -.00450  
 -.00002  
 CA3  
 .00259  
 .00280  
 .00303  
 .00006  
 CLM3  
 .00049  
 .00053  
 .00057  
 .00001  
 CA4  
 .00627  
 .00588  
 .00648  
 .00003  
 CLM4  
 .00150  
 .00149  
 .00169  
 .00001

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 509

0A148 -140 A/B/C FOREBODY INCREMENTS

(EE8080) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .600

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00538	-.00636	.00501	.02295	-.00445	.00263	.00050	.00559	.00142
.00643	-.00641	.00495	.02270	-.00440	.00275	.00052	.00587	.00150
.00660	-.00660	.00519	.02379	-.00461	.00318	.00060	.00646	.00165
.00655	-.00653	.00543	.02488	-.00482	.00348	.00065	.00671	.00171
.00665	-.00663	.00575	.02635	-.00511	.00360	.00068	.00713	.00182
.00002	-.00002	.00006	.00027	-.00005	.00009	.00002	.00010	.00003

GRADIENT

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00555	-.00653	.00478	.02130	-.00425	.00252	.00047	.00587	.00150
.00638	-.00636	.00490	.02246	-.00435	.00284	.00054	.00569	.00145
.00642	-.00640	.00507	.02325	-.00451	.00315	.00059	.00630	.00160
.00661	-.00649	.00535	.02452	-.00476	.00336	.00063	.00671	.00171
.00637	-.00635	.00544	.02492	-.00483	.00356	.00067	.00721	.00184
.00002	-.00002	.00006	.00026	-.00005	.00006	.00001	.00013	.00003

GRADIENT

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00628	-.00626	.00466	.02134	-.00414	.00285	.00054	.00550	.00140
.00634	-.00633	.00478	.02192	-.00425	.00283	.00053	.00535	.00136
.00623	-.00621	.00506	.02320	-.00450	.00292	.00055	.00581	.00148
.00644	-.00642	.00523	.02398	-.00465	.00332	.00062	.00670	.00171
.00633	-.00631	.00539	.02463	-.00478	.00339	.00064	.00687	.00175
.00001	-.00001	.00006	.00026	-.00005	.00006	.00001	.00017	.00004

GRADIENT

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00611	-.00609	.00457	.02093	-.00406	.00278	.00052	.00534	.00136
.00624	-.00622	.00473	.02166	-.00420	.00265	.00050	.00508	.00129
.00623	-.00621	.00466	.02135	-.00414	.00277	.00054	.00580	.00148
.00641	-.00639	.00519	.02380	-.00462	.003	.00064	.00697	.00178
.00626	-.00624	.00562	.02574	-.00499	.00357	.00067	.00775	.00197
.00002	-.00002	.00006	.00027	-.00005	.00010	.00002	.00024	.00006

GRADIENT

(EE9080) ( 23 AUG 75 )

0A148 -140 A/B/C FOREBODY INCREMENTS

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-8.000  
-4.000  
-0.000  
4.000  
8.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.00610	-.00608	.00450	.02063	-.00400	.00286	.00054	.00574	.00146
.00618	-.00617	.00458	.02097	-.00407	.00278	.00052	.00517	.00132
.00615	-.00613	.00481	.02204	-.00427	.00300	.00056	.00598	.00152
.00603	-.00601	.00490	.02201	-.00427	.00316	.00059	.00662	.00169
.00618	-.00616	.00532	.02439	-.00473	.00356	.00067	.00759	.00193
-.00002	.00002	.00003	.00013	-.00003	.00005	.00001	.00018	.00005

PARAMETRIC DATA

RUDDER = -10.000  
BDFLAP = -11.700  
ELVN-R = -10.000  
SPCRK = .000  
ELVN-L = 10.000  
MACH = .600

(EE9081) ( 23 AUG 75 )

0A148 -140 A/B/C FOREBODY INCREMENTS

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-8.000  
-4.000  
-0.000  
4.000  
8.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01669	-.01066	.00701	.03213	-.00623	.00473	.00089	.01101	.00281
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

RUDDER = 10.000  
BDFLAP = -11.700  
ELVN-R = 10.000  
SPCRK = .000  
ELVN-L = -10.000  
MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-8.000  
-4.000  
-0.000  
4.000  
8.000  
GRADIENT

CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
.01055	-.01062	.00695	.03185	-.00518	.00464	.00087	.01074	.00274
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

RUDDER = 10.000  
BDFLAP = -11.700  
ELVN-R = 10.000  
SPCRK = .000  
ELVN-L = -10.000  
MACH = 1.400



THE UNITED FORCE DATA - 0A148 ( AMES 11-073-1 )

(EE9092) (23 AUG 75)

21  
(1)  
(2)  
(3)  
(4)  
(5)  
(6)  
(7)  
(8)  
(9)  
(10)

ITEM	QTY	UNIT	PRICE	TOTAL	REMARKS
1	1	EA	10.000	10.000	RUDDER
2	1	EA	11.700	11.700	BOFLAP
3	1	EA	1.250	1.250	ELVN-R
4	1	EA	10.000	10.000	ELVN-R
5	1	EA	10.000	10.000	ELVN-R
6	1	EA	10.000	10.000	ELVN-R
7	1	EA	10.000	10.000	ELVN-R
8	1	EA	10.000	10.000	ELVN-R
9	1	EA	10.000	10.000	ELVN-R
10	1	EA	10.000	10.000	ELVN-R
11	1	EA	10.000	10.000	ELVN-R
12	1	EA	10.000	10.000	ELVN-R
13	1	EA	10.000	10.000	ELVN-R
14	1	EA	10.000	10.000	ELVN-R
15	1	EA	10.000	10.000	ELVN-R
16	1	EA	10.000	10.000	ELVN-R
17	1	EA	10.000	10.000	ELVN-R
18	1	EA	10.000	10.000	ELVN-R
19	1	EA	10.000	10.000	ELVN-R
20	1	EA	10.000	10.000	ELVN-R
21	1	EA	10.000	10.000	ELVN-R
22	1	EA	10.000	10.000	ELVN-R
23	1	EA	10.000	10.000	ELVN-R
24	1	EA	10.000	10.000	ELVN-R
25	1	EA	10.000	10.000	ELVN-R
26	1	EA	10.000	10.000	ELVN-R
27	1	EA	10.000	10.000	ELVN-R
28	1	EA	10.000	10.000	ELVN-R
29	1	EA	10.000	10.000	ELVN-R
30	1	EA	10.000	10.000	ELVN-R
31	1	EA	10.000	10.000	ELVN-R
32	1	EA	10.000	10.000	ELVN-R
33	1	EA	10.000	10.000	ELVN-R
34	1	EA	10.000	10.000	ELVN-R
35	1	EA	10.000	10.000	ELVN-R
36	1	EA	10.000	10.000	ELVN-R
37	1	EA	10.000	10.000	ELVN-R
38	1	EA	10.000	10.000	ELVN-R
39	1	EA	10.000	10.000	ELVN-R
40	1	EA	10.000	10.000	ELVN-R
41	1	EA	10.000	10.000	ELVN-R
42	1	EA	10.000	10.000	ELVN-R
43	1	EA	10.000	10.000	ELVN-R
44	1	EA	10.000	10.000	ELVN-R
45	1	EA	10.000	10.000	ELVN-R
46	1	EA	10.000	10.000	ELVN-R
47	1	EA	10.000	10.000	ELVN-R
48	1	EA	10.000	10.000	ELVN-R
49	1	EA	10.000	10.000	ELVN-R
50	1	EA	10.000	10.000	ELVN-R
51	1	EA	10.000	10.000	ELVN-R
52	1	EA	10.000	10.000	ELVN-R
53	1	EA	10.000	10.000	ELVN-R
54	1	EA	10.000	10.000	ELVN-R
55	1	EA	10.000	10.000	ELVN-R
56	1	EA	10.000	10.000	ELVN-R
57	1	EA	10.000	10.000	ELVN-R
58	1	EA	10.000	10.000	ELVN-R
59	1	EA	10.000	10.000	ELVN-R
60	1	EA	10.000	10.000	ELVN-R
61	1	EA	10.000	10.000	ELVN-R
62	1	EA	10.000	10.000	ELVN-R
63	1	EA	10.000	10.000	ELVN-R
64	1	EA	10.000	10.000	ELVN-R
65	1	EA	10.000	10.000	ELVN-R
66					

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[illegible]

	$\rho_{\text{H}_2\text{O}}$	$\rho/\text{g}$	$\text{RN/L} = 3.03$	$\text{GRADIENT INTERVAL} = -5.00/ 5.00$	
10.14	0.9994	C12	C12	C13	C14
10.00	0.9995	-0.0001	-0.0001	-0.0002	-0.0004
9.86	0.9996	-0.0002	-0.0003	-0.0003	-0.0009
9.72	0.9997	-0.0003	-0.0005	-0.0003	-0.0009
9.58	0.9998	-0.0004	-0.0006	-0.0003	-0.0009
9.44	0.9999	-0.0005	-0.0007	-0.0003	-0.0009
9.30	0.9999	-0.0006	-0.0008	-0.0003	-0.0009
9.16	0.9999	-0.0007	-0.0009	-0.0003	-0.0009
9.02	0.9999	-0.0008	-0.0010	-0.0003	-0.0009
8.88	0.9999	-0.0009	-0.0011	-0.0003	-0.0009
8.74	0.9999	-0.0010	-0.0012	-0.0003	-0.0009
8.60	0.9999	-0.0011	-0.0013	-0.0003	-0.0009
8.46	0.9999	-0.0012	-0.0014	-0.0003	-0.0009
8.32	0.9999	-0.0013	-0.0015	-0.0003	-0.0009
8.18	0.9999	-0.0014	-0.0016	-0.0003	-0.0009
8.04	0.9999	-0.0015	-0.0017	-0.0003	-0.0009
7.90	0.9999	-0.0016	-0.0018	-0.0003	-0.0009
7.76	0.9999	-0.0017	-0.0019	-0.0003	-0.0009
7.62	0.9999	-0.0018	-0.0020	-0.0003	-0.0009
7.48	0.9999	-0.0019	-0.0021	-0.0003	-0.0009
7.34	0.9999	-0.0020	-0.0022	-0.0003	-0.0009
7.20	0.9999	-0.0021	-0.0023	-0.0003	-0.0009
7.06	0.9999	-0.0022	-0.0024	-0.0003	-0.0009
6.92	0.9999	-0.0023	-0.0025	-0.0003	-0.0009
6.78	0.9999	-0.0024	-0.0026	-0.0003	-0.0009
6.64	0.9999	-0.0025	-0.0027	-0.0003	-0.0009
6.50	0.9999	-0.0026	-0.0028	-0.0003	-0.0009
6.36	0.9999	-0.0027	-0.0029	-0.0003	-0.0009
6.22	0.9999	-0.0028	-0.0030	-0.0003	-0.0009
6.08	0.9999	-0.0029	-0.0031	-0.0003	-0.0009
5.94	0.9999	-0.0030	-0.0032	-0.0003	-0.0009
5.80	0.9999	-0.0031	-0.0033	-0.0003	-0.0009
5.66	0.9999	-0.0032	-0.0034	-0.0003	-0.0009
5.52	0.9999	-0.0033	-0.0035	-0.0003	-0.0009
5.38	0.9999	-0.0034	-0.0036	-0.0003	-0.0009
5.24	0.9999	-0.0035	-0.0037	-0.0003	-0.0009
5.10	0.9999	-0.0036	-0.0038	-0.0003	-0.0009
4.96	0.9999	-0.0037	-0.0039	-0.0003	-0.0009
4.82	0.9999	-0.0038	-0.0040	-0.0003	-0.0009
4.68	0.9999	-0.0039	-0.0041	-0.0003	-0.0009
4.54	0.9999	-0.0040	-0.0042	-0.0003	-0.0009
4.40	0.9999	-0.0041	-0.0043	-0.0003	-0.0009
4.26	0.9999	-0.0042	-0.0044	-0.0003	-0.0009
4.12	0.9999	-0.0043	-0.0045	-0.0003	-0.0009
3.98	0.9999	-0.0044	-0.0046	-0.0003	-0.0009
3.84	0.9999	-0.0045	-0.0047	-0.0003	-0.0009
3.70	0.9999	-0.0046	-0.0048	-0.0003	-0.0009
3.56	0.9999	-0.0047	-0.0049	-0.0003	-0.0009
3.42	0.9999	-0.0048	-0.0050	-0.0003	-0.0009
3.28	0.9999	-0.0049	-0.0051	-0.0003	-0.0009
3.14	0.9999	-0.0050	-0.0052	-0.0003	-0.0009
3.00	0.9999	-0.0051	-0.0053	-0.0003	-

[illegible]

40  
 41  
 42  
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NAME	UNIT	VALUE	UNIT	VALUE	UNIT	VALUE
RUDDER	°	10.000	°	10.000	SECBK	°
BDFLAP	°	-1.000	°	-1.000	ELVN-L	°
ELVN-R	°	10.000	°	10.000	MACH	

# PARAMETRIC DATA

Run	Run No.	Run Date	Run Time	Run Location	Run Description	Run Status	Run Results	Run Comments
1	101	10/10/2010	10:00	101	101	101	101	101
2	102	10/10/2010	10:05	102	102	102	102	102
3	103	10/10/2010	10:10	103	103	103	103	103
4	104	10/10/2010	10:15	104	104	104	104	104
5	105	10/10/2010	10:20	105	105	105	105	105
6	106	10/10/2010	10:25	106	106	106	106	106
7	107	10/10/2010	10:30	107	107	107	107	107
8	108	10/10/2010	10:35	108	108	108	108	108
9	109	10/10/2010	10:40	109	109	109	109	109
10	110	10/10/2010	10:45	110	110	110	110	110
11	111	10/10/2010	10:50	111	111	111	111	111
12	112	10/10/2010	10:55	112	112	112	112	112
13	113	10/10/2010	11:00	113	113	113	113	113
14	114	10/10/2010	11:05	114	114	114	114	114
15	115	10/10/2010	11:10	115	115	115	115	115
16	116	10/10/2010	11:15	116	116	116	116	116
17	117	10/10/2010	11:20	117	117	117	117	117
18	118	10/10/2010	11:25	118	118	118	118	118
19	119	10/10/2010	11:30	119	119	119	119	119
20	120	10/10/2010	11:35	120	120	120	120	120
21	121	10/10/2010	11:40	121	121	121	121	121
22	122	10/10/2010	11:45	122	122	122	122	122
23	123	10/10/2010	11:50	123	123	123	123	123
24	124	10/10/2010	11:55	124	124	124	124	124
25	125	10/10/2010	12:00	125	125	125	125	125
26	126	10/10/2010	12:05	126	126	126	126	126
27	127	10/10/2010	12:10	127	127	127	127	127
28	128	10/10/2010	12:15	128	128	128	128	128
29	129	10/10/2010	12:20	129	129	129	129	129
30	130	10/10/2010	12:25	130	130	130	130	130
31	131	10/10/2010	12:30	131	131	131	131	131
32	132	10/10/2010	12:35	132	132	132	132	132
33	133	10/10/2010	12:40	133	133	133	133	133
34	134	10/10/2010	12:45	134	134	134	134	134
35	135	10/10/2010	12:50	135	135	135	135	135
36	136	10/10/2010	12:55	136	136	136	136	136
37	137	10/10/2010	13:00	137	137	137	137	137
38	138	10/10/2010	13:05	138	138	138	138	138
39	139	10/10/2010	13:10	139	139	139	139	139
40	140	10/10/2010	13:15	140	140	140	140	140
41	141	10/10/2010	13:20	141	141	141	141	141
42	142	10/10/2010	13:25	142	142	142		

[illegible]



(5)  
 1-  
 2-  
 2-  
 (7)  
 (3)  
 1-  
 1-  
 2-  
 (3)

LABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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DATA-3 -140 A/B/C FOREBODY INCREMENTS I (SE9083) ( 23 AUG 75 )

Q. E. C. DATA

SEEF	=	2690.0000	SG.FT.	XMAP	=	.075.6900	IN.	XO
SEEF	=	474.8000	IN.	YMAP	=	.0000	IN.	YO
SEEF	=	935.6000	IN.	ZMAP	=	375.0000	IN.	ZO
SEEF	=	1500.0000	IN.					

RUDDER =	10.000	SPDERK =	.000
60FLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	1.100

## PARAMETRIC DATA

RUN NO.	0	0	R:V/L =	3.20	GRADIENT INTERVAL =	-5.00/	5.00
---------	---	---	---------	------	---------------------	--------	------

	CA1	CLM1	CM2	CA2	CLM2	CA3	CLM3	CA4	CLM4
BE-A									
AL-B-A									
1	.000	-.0179	-.00770	.03529	-.05554	.05533	.00100	.01203	.00307
2	.000	-.01152	.00730	.03343	-.06648	.05436	.00093	.01137	.00290
3	.000	-.01154	.00754	.03454	-.06570	.05535	.00095	.01148	.00293
CA-B-E-A	-.00003	.00003	-.00002	-.00009	.00002	-.00004	-.00001	-.00007	-.00002

RUN NO. 0/ 0 RM/L = 3.20 GRADIENT INTERVAL = -5.03/ 5.00

[illegible]

BUY NO.	0/0	RVL = 3.20	GRADIENT INTERVAL = -5.00/	5.00
---------	-----	------------	----------------------------	------

	CA1	CLM1	CN2	CA2	CLM2	CA3	CLM3	CA4	CLM4
SETA									
1	.01238	-.01235	.03840	.03850	-.00747	.03574	.03108	.01283	-.00327
2	.01227	.01222	.03839	.03709	-.03719	.00554	.00104	.01238	-.00315
3	.01215	-.01212	.03797	.03553	-.00768	.00536	.00101	.01209	-.00308
4	-.00003	.00003	-.00005	-.00025	.00095	-.00005	-.00001	-.00009	-.00002
5	-.00003								

## REFERENCE DATA

655	=	2690	0.000	92.171	XMAP	=	1076.6800	IN. X0
1.000	=	47.6000	IN.		YMAP	=	.0000	IN. Y0
0.000	=	935.6000	IN.		ZMAP	=	375.0000	IN. Z0
0.000	=	0.0000	IN.					

RUDDER =	10.000	SPOBRK =	.000
BOFLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	.900

## PARAMETRIC DATA

FW NO.	3/ 0	RN/L =	3.59	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

RUN NO.	0' 0	RN/L =	3.59	GRADIENT INTERVAL =	-5.00/	5.00
---------	------	--------	------	---------------------	--------	------

[illegible]





TABLE 1 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 2

TABLE 3

TABLE 1

TABLE 2

TABLE 3

TABLE 1 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 2 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 3

TABLE 1 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 2 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 3

TABLE 1 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 2 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 3

TABLE 1 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 2 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 3

TABLE 1 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 2 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

TABLE 3

TABLE 1 - 100 A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 EYFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00002  
 CASC  
 -.00130  
 -.00101  
 -.00050  
 .00010  
 CLMSC  
 .00021  
 .00016  
 .00008  
 -.00002  
 CABF  
 .00800  
 .00774  
 .00791  
 -.00001  
 CNBF  
 .01868  
 .01807  
 .01847  
 -.00003  
 CLMBF  
 -.01940  
 -.01876  
 -.01918  
 .00003

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00003  
 CASC  
 -.00105  
 -.00078  
 -.00006  
 .00012  
 CLMSC  
 .00017  
 .00012  
 .00001  
 -.00002  
 CABF  
 .00792  
 .00772  
 .00790  
 -.00000  
 CNBF  
 .01850  
 .01803  
 .01845  
 -.00001  
 CLMBF  
 -.01921  
 -.01872  
 -.01915  
 .00001

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00002  
 CASC  
 -.00105  
 -.00083  
 -.00020  
 .00011  
 CLMSC  
 .00017  
 .00013  
 .00003  
 -.00002  
 CABF  
 .00796  
 .00791  
 .00806  
 .00001  
 CNBF  
 .01858  
 .01842  
 .01882  
 .00003  
 CLMBF  
 -.01929  
 -.01919  
 -.01954  
 -.00003

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00001  
 CASC  
 -.00104  
 -.00092  
 -.00014  
 .00005  
 CLMSC  
 .00016  
 .00015  
 .00010  
 -.00001  
 CABF  
 .00833  
 .00836  
 .00838  
 .00001  
 CNBF  
 .01946  
 .01953  
 .01958  
 .00002  
 CLMBF  
 -.02020  
 -.02028  
 -.02033  
 -.00002

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00000  
 CASC  
 -.00078  
 -.00120  
 -.00020  
 -.00002  
 CLMSC  
 .00012  
 .00019  
 .00014  
 .00000  
 CABF  
 .00867  
 .00869  
 .00884  
 .00002  
 CNBF  
 .02024  
 .02043  
 .02065  
 .00005  
 CLMBF  
 -.02101  
 -.02107  
 -.02144  
 -.00005

DATE 28 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(FE8003) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

.00002

.00008

.00011

.00017

.00021

.00029

.00032

.00037

.00042

.00047

.00052

.00057

.00062

.00067

.00072

.00077

.00082

.00087

.00092

.00097

.00102

.00107

.00112

.00117

.00122

.00127

.00132

.00137

.00142

.00147

.00152

.00157

.00162

.00167

.00172

.00177

.00182

.00187

.00192

.00197

.00202

.00207

.00212

.00217

.00222

.00227

.00232

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

.00002

.00004

.00006

.00008

.00010

.00012

.00014

.00016

.00018

.00020

.00022

.00024

.00026

.00028

.00030

.00032

.00034

.00036

.00038

.00040

.00042

.00044

.00046

.00048

.00050

.00052

.00054

.00056

.00058

.00060

.00062

.00064

.00066

.00068

.00070

.00072

.00074

.00076

.00078

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

.00002

.00004

.00006

.00008

.00010

.00012

.00014

.00016

.00018

.00020

.00022

.00024

.00026

.00028

.00030

.00032

.00034

.00036

.00038

.00040

.00042

.00044

.00046

.00048

.00050

.00052

.00054

.00056

.00058

.00060

.00062

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

.00002

.00004

.00006

.00008

.00010

.00012

.00014

.00016

.00018

.00020

.00022

.00024

.00026

.00028

.00030

.00032

.00034

.00036

.00038

.00040

.00042

.00044

.00046

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

.00002

.00004

.00006

.00008

.00010

.00012

.00014

.00016

.00018

.00020

.00022

.00024

.00026

.00028

.00030

CNBF  
 .02072  
 .02032  
 .02088  
 .00002  
 CLMBF  
 -.02151  
 -.02109  
 -.02168  
 -.00002

CNBF  
 .02059  
 .02027  
 .02001  
 -.00007  
 CLMBF  
 -.02138  
 -.02105  
 -.02078  
 .00008

CNBF  
 .02066  
 .02072  
 .02075  
 .00001  
 CLMBF  
 -.02145  
 -.02151  
 -.02154  
 -.00001

CNBF  
 .02194  
 .02150  
 .02208  
 .00002  
 CLMBF  
 -.02278  
 -.02232  
 -.02292  
 -.00002

CNBF  
 .02304  
 .02187  
 .02318  
 .00002  
 CLMBF  
 -.02392  
 -.02271  
 -.02406  
 -.00002

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

( FEB004 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BF C = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SC, E = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNSC .00006  
 - .00012  
 - .00014  
 - .00002

CASC .00025  
 - .00055  
 - .00062  
 - .00011

CLMSC - .00004  
 .00009  
 .00010  
 .00002

CABF .00665  
 .00664  
 .00676  
 .00001

CNBF .01554  
 .01550  
 .01578  
 .00003

CLMBF  
 -.01613  
 -.01609  
 -.01639  
 -.00003

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNSC - .00003  
 - .00017  
 - .00018  
 - .00002

CASC - .00015  
 - .00075  
 - .00080  
 - .00008

CLMSC .00002  
 .00012  
 .00013  
 .00001

CABF .00666  
 .00638  
 .00669  
 .00000

CNBF .01555  
 .01489  
 .01562  
 .00001

CLMBF  
 -.01614  
 -.01546  
 -.01621  
 -.00001

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNSC - .00025  
 - .00019  
 - .00007  
 .00002

CASC - .00112  
 - .00086  
 - .00031  
 .00010

CLMSC .00018  
 .00014  
 .00005  
 -.00002

CABF .00652  
 .00623  
 .00633  
 -.00002

CNBF .01523  
 .01456  
 .01479  
 -.00006

CLMBF  
 -.01582  
 -.01512  
 -.01576  
 .00006

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNSC - .00023  
 - .00011  
 .00003  
 .00003

CASC - .00105  
 - .00050  
 .00012  
 .00015

CLMSC .00017  
 .00008  
 -.00002  
 -.00002

CABF .00625  
 .00606  
 .00606  
 -.00002

CNBF .01460  
 .01414  
 .01415  
 -.00006

CLMBF  
 -.01516  
 -.01468  
 -.01469  
 .00006

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNSC - .00015  
 - .00004  
 .00004  
 .00002

CASC - .00068  
 - .00020  
 .00020  
 .00011

CLMSC .00011  
 .00003  
 -.00002  
 -.00002

CABF .00638  
 .00615  
 .00646  
 .00001

CNBF .01491  
 .01437  
 .01509  
 .00002

CLMBF  
 -.01548  
 -.01492  
 -.01567  
 -.00002

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE8005) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RUDDER =  
BDFLAP =  
ELVN-R =

SPDBRK = 55.000  
ELVN-L = .000  
MACH = .600

PARAMETRIC DATA

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00020	-.00089	.00014	.00562	.01312	-.01353
-4.000	-.00013	-.00058	.00009	.00558	.01302	-.01352
.000	-.00020	-.00089	.00014	.00559	.01305	-.01355
4.000	-.00021	-.00094	.00015	.00561	.01309	-.01359
8.000	-.00009	-.00042	.00007	.00567	.01323	-.01374
GRADIENT	-.00001	-.00004	.00001	.00000	.00001	-.00001

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00025	-.00113	.00018	.00567	.01325	-.01376
-4.000	-.00016	-.00071	.00011	.00559	.01306	-.01356
.000	-.00023	-.00102	.00016	.00554	.01293	-.01342
4.000	-.00019	-.00086	.00014	.00557	.01300	-.01350
8.000	-.00012	-.00053	.00008	.00578	.01349	-.01401
GRADIENT	-.00000	-.00002	.00000	-.00000	-.00001	.00001

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00032	-.00142	.00023	.00584	.01363	-.01416
-4.000	-.00023	-.00102	.00016	.00561	.01311	-.01361
.000	-.00018	-.00082	.00013	.00548	.01280	-.01329
4.000	-.00013	-.00050	.00010	.00572	.01335	-.01386
8.000	-.00005	-.00023	.00004	.00565	.01320	-.01371
GRADIENT	.00001	.00005	-.00001	.00001	.00003	-.00003

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00036	-.00150	.00025	.00591	.01381	-.01434
-4.000	-.00030	-.00136	.00022	.00568	.01327	-.01377
.000	-.00017	-.00076	.00012	.00541	.01263	-.01311
4.000	-.00006	-.00029	.00005	.00556	.01298	-.01348
8.000	.00001	.00003	-.00000	.00588	.01374	-.01426
GRADIENT	.00003	.00013	-.00002	-.00002	-.00004	.00004



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1.

(FE8005) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CNSC  
 -.00034  
 -.00032  
 -.00018  
 -.00003  
 .00003  
 .00004

CASC  
 -.00152  
 -.00142  
 -.00081  
 -.00015  
 .00014  
 .00016

CLMSC  
 .00024  
 .00023  
 .00013  
 .00002  
 -.00002  
 -.00003

CABF  
 .00585  
 .00550  
 .00527  
 .00502  
 .00569  
 .00001

CNBF  
 .01367  
 .01285  
 .01230  
 .01305  
 .01330  
 .00003

CLMBF  
 -.01419  
 -.01334  
 -.01277  
 -.01355  
 -.01360  
 -.00003

PARAMETRIC DATA  
 RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CNSC  
 -.00016  
 -.00013  
 -.00019  
 -.00021  
 -.00010  
 -.00001

CASC  
 -.00074  
 -.00059  
 -.00083  
 -.00092  
 -.00045  
 -.00004

CLMSC  
 .00012  
 .00009  
 .00013  
 .00015  
 .00007  
 .00001

CABF  
 .00775  
 .00749  
 .00763  
 .00760  
 .00761  
 .00001

CNBF  
 .01377  
 .01330  
 .01355  
 .01351  
 .01352  
 .00003

CLMBF  
 -.01464  
 -.01415  
 -.01441  
 -.01436  
 -.01438  
 -.00003

PARAMETRIC DATA  
 RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE8006) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CNSC  
 -.00026  
 -.00015  
 -.00019  
 -.00018  
 -.00022  
 -.00000

CASC  
 -.00119  
 -.00069  
 -.00087  
 -.00081  
 -.00098  
 -.00001

CLMSC  
 .00019  
 .00011  
 .00014  
 .00013  
 .00016  
 .00000

CABF  
 .00770  
 .00761  
 .00741  
 .00765  
 .00788  
 .00000

CNBF  
 .01368  
 .01352  
 .01316  
 .01359  
 .01400  
 .00001

CLMBF  
 -.01454  
 -.01438  
 -.01399  
 -.01445  
 -.01489  
 -.00001

PARAMETRIC DATA  
 RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE8005) ( 23 AUG 75 )

# REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 CREF = 936.6600 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

# PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00022	-.00098	.00016	.00779	.01384	-.01472
-4.000	-.00019	-.00087	.00014	.00760	.01350	-.01436
.000	-.00022	-.00099	.00016	.00744	.01321	-.01405
4.000	-.00023	-.00105	.00017	.00772	.01371	-.01458
8.000	-.00001	-.00005	.00001	.00771	.01369	-.01456
GRADIENT	-.00000	-.00002	.00000	.00001	.00003	-.00003

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00029	-.00130	.00021	.00783	.01391	-.01479
-4.000	-.00022	-.00098	.00016	.00745	.01323	-.01406
.000	-.00022	-.00099	.00016	.00724	.01285	-.01367
4.000	-.00023	-.00101	.00016	.00749	.01330	-.01414
8.000	.00001	.00004	-.00001	.00784	.01392	-.01480
GRADIENT	-.00000	-.00000	.00000	.00001	.00001	-.00001

RN/L = 3.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00033	-.00150	.00024	.00770	.01368	-.01454
-4.000	-.00025	-.00110	.00018	.00722	.01283	-.01364
.000	-.00018	-.00083	.00013	.00723	.01284	-.01366
4.000	-.00011	-.00050	.00008	.00734	.01304	-.01387
8.000	-.00000	-.00001	.00000	.00765	.01359	-.01445
GRADIENT	.00002	.00008	-.00001	.00002	.00003	-.00003

(FEB007) ( 04 FEB 76 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. /  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
BDFLAP = 22.500 ELVN-L = .000  
ELVN-R = .000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
-4.0000  
CNSC  
-.00013  
-.00015  
-.00023  
-.00001  
CASC  
-.00059  
-.00067  
-.00134  
-.00006  
CLMSC  
.00009  
.00011  
.00017  
.00001  
CABF  
.00912  
.00912  
.00917  
.00001  
CNBF  
.01620  
.01615  
.01629  
.00001  
CLMBF  
-.01723  
-.01721  
-.01732  
-.00001

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
-.00000  
CNSC  
-.00018  
-.00012  
-.00021  
-.00000  
CASC  
-.00082  
-.00054  
-.00092  
-.00001  
CLMSC  
.00013  
.00009  
.00015  
.00000  
CABF  
.00872  
.00855  
.00902  
.00004  
CNBF  
.01550  
.01521  
.01603  
.00007  
CLMBF  
-.01648  
-.01617  
-.01704  
-.00007

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
-.00000  
CNSC  
-.00016  
-.00018  
-.00017  
-.00000  
CASC  
-.00073  
-.00081  
-.00075  
-.00000  
CLMSC  
.00012  
.00013  
.00012  
.00000  
CABF  
.00864  
.00846  
.00880  
.00002  
CNBF  
.01535  
.01502  
.01563  
.00004  
CLMBF  
-.01632  
-.01597  
-.01662  
-.00004

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
-.00001  
CNSC  
-.00017  
-.00017  
-.00010  
-.00001  
CASC  
-.00075  
-.00075  
-.00045  
.00004  
CLMSC  
.00012  
.00012  
.00007  
-.00001  
CABF  
.00863  
.00855  
.00889  
.00003  
CNBF  
.01532  
.01518  
.01579  
.00006  
CLMBF  
-.01629  
-.01614  
-.01679  
-.00006

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
-.00002  
CNSC  
-.00003  
-.00001  
-.00018  
-.00002  
CASC  
-.00015  
-.00005  
-.00083  
-.00008  
CLMSC  
.00002  
.00001  
.00013  
.00001  
CABF  
.00890  
.00858  
.00907  
.00002  
CNBF  
.01582  
.01525  
.01611  
.00004  
CLMBF  
-.01682  
-.01621  
-.01713  
-.00004

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

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(FE8008) ( 23 AUG 75 )

# REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

# PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
BDFLAP = 22.500 ELVN-L = .000  
ELVN-R = .000 NACH = 1.400

ALPHA = -4.000 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00019	-.00085	.00014	.00891	.01582	-.01663
.000	-.00021	-.00093	.00015	.00900	.01599	-.01700
4.000	-.00013	-.00058	.00009	.00901	.01600	-.01701
GRADIENT	.00001	.00003	-.00001	.00001	.00002	-.00002

ALPHA = .000 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00024	-.00106	.00017	.00901	.01600	-.01701
.000	-.00016	-.00070	.00011	.00920	.01634	-.01738
4.000	-.00009	-.00042	.00007	.00923	.01639	-.01743
GRADIENT	.00002	.00008	-.00001	.00003	.00005	-.00005

ALPHA = 4.000 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00006	-.00025	.00004	.00923	.01639	-.01743
.000	-.00004	-.00017	.00003	.00931	.01654	-.01758
4.000	-.00015	-.00066	.00010	.00948	.01684	-.01790
GRADIENT	-.00001	-.00005	.00001	.00003	.00006	-.00006

ALPHA = 8.000 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00009	-.00038	.00006	.00968	.01719	-.01827
.000	-.00014	-.00063	.00010	.00961	.01707	-.01815
4.000	-.00013	-.00059	.00009	.00968	.01720	-.01829
GRADIENT	-.00001	-.00003	.00000	.00000	.00000	-.00000

ALPHA = 12.000 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00018	-.00082	.00013	.00995	.01767	-.01879
.000	-.00016	-.00072	.00011	.01004	.01783	-.01895
4.000	-.00017	-.00075	.00012	.01026	.01823	-.01938
GRADIENT	.00000	.00001	-.00000	.00004	.00007	-.00007

DATE 08 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE8008) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDGRK = 85.000  
BDFLAP = 22.500 ELVN-L = .000  
ELVN-R = .000 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000

BETA

-4.000

.000

4.000

GRADIENT

-.00000

CNSC

-.00016

-.00020

-.00019

-.00000

CASC

-.00072

-.00083

-.00088

-.00002

CLMSC

.00011

.00014

.00014

.00000

CABF

.01032

.01046

.01048

.00002

CNBF

.01833

.01858

.01962

.00004

CLMBF

-.01949

-.01976

-.01990

-.00004

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDGRK = 85.000  
BDFLAP = 22.500 ELVN-L = .000  
ELVN-R = .000 MACH = 1.250

(FE8009) ( 23 AUG 75 )

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

.00002

CNSC

-.00022

-.00021

-.00008

.00002

CASC

-.00101

-.00094

-.00034

.00008

CLMSC

.00016

.00015

.00005

-.00001

CABF

.00982

.00959

.00989

.00001

CNBF

.01744

.01704

.01757

.00002

CLMBF

-.01855

-.01812

-.01868

-.00002

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

.00002

CNSC

-.00022

-.00018

-.00006

.00002

CASC

-.00098

-.00080

-.00025

.00009

CLMSC

.00016

.00013

.00004

-.00001

CABF

.01002

.01000

.01026

.00003

CNBF

.01780

.01776

.01822

.00005

CLMBF

-.01893

-.01889

-.01937

-.00006

DATE 13 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FES009) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOCK = 65.000  
 BOFLAP = 22.500 ELIN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CNSC

-.00014

-.00013

-.00009

.00001

CASC

-.00063

-.00060

-.00041

.00003

CLMSC

.00010

.00010

.00007

-.00000

CABF

.01040

.01064

.01058

.00002

CNSF

.01947

.01889

.01880

.00004

CLMBF

-.01354

-.02009

-.01989

-.00004

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CNSC

-.00010

-.00015

-.00021

-.00001

CASC

-.00045

-.00069

-.00093

-.00006

CLMSC

.00007

.00011

.00015

.00001

CABF

.01095

.01106

.01117

.00003

CNSF

.01945

.01865

.01583

.00005

CLMBF

-.02069

-.02069

-.02109

-.00005

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .2.000

BETA

-4.000

.000

4.000

GRADIENT

CNSC

-.00017

-.00020

-.00017

.00000

CASC

-.00076

-.00090

-.00074

.00000

CLMSC

.00012

.00014

.00012

-.00000

CABF

.01141

.02042

.01169

.00003

CNSF

.02027

.02042

.02076

.00006

CLMBF

-.02155

-.02172

-.02209

-.00007



DATE 05 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

# REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6900 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

ALPHA = -4.000  
BETA

GRADIENT

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

CNSC  
-4.000  
-4.000  
4.000  
GRADIENT

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA

GRADIENT

CNSC  
-4.000  
-4.000  
4.000  
GRADIENT

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA

GRADIENT

CNSC  
-4.000  
-4.000  
4.000  
GRADIENT

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA

GRADIENT

CNSC  
-4.000  
-4.000  
4.000  
GRADIENT

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA

GRADIENT

CNSC  
-4.000  
-4.000  
4.000  
GRADIENT

FILE 008

(FEED1) ( 23 AUG 75 )

## PARAMETRIC DATA

RUDDER = .000  
BDCLAP = 22.500  
ELVN-R = .000  
ELVN-L = .000  
MACH = .900  
SFCGRK = 85.000

CNBF  
-0.01605  
-0.01698  
-0.01687  
-0.01718  
-0.00003

CNBF  
-0.01637  
-0.01633  
-0.01677  
-0.00003

CNBF  
-0.01643  
-0.01624  
-0.01645  
-0.00000

CNBF  
-0.01636  
-0.01630  
-0.01650  
-0.00003

CNBF  
-0.01641  
-0.01631  
-0.01703  
-0.00009

CABF  
-0.00956  
-0.00950  
-0.00967  
-0.00001

CABF  
-0.00955  
-0.00920  
-0.00944  
-0.00001

CABF  
-0.00953  
-0.00914  
-0.00926  
-0.00000

CABF  
-0.00921  
-0.00925  
-0.00935  
-0.00002

CABF  
-0.00924  
-0.00918  
-0.00922  
-0.00005

CASC  
-0.00038  
-0.00052  
-0.00091  
-0.00007

CASC  
-0.00030  
-0.00066  
-0.00103  
-0.00009

CASC  
-0.00052  
-0.00053  
-0.00030  
-0.00003

CASC  
-0.00054  
-0.00051  
-0.00019  
-0.00004

CASC  
-0.00007  
-0.00047  
-0.00038  
-0.00004

CLMSC  
-0.00006  
-0.00008  
-0.00015  
-0.00001

CLMSC  
-0.00005  
-0.00010  
-0.00016  
-0.00001

CLMSC  
-0.00008  
-0.00008  
-0.00005  
-0.00000

CLMSC  
-0.00009  
-0.00008  
-0.00003  
-0.00001

CLMSC  
-0.00001  
-0.00008  
-0.00006  
-0.00001

CLMBF  
-0.01605  
-0.01698  
-0.01687  
-0.01718  
-0.00003

CLMBF  
-0.01637  
-0.01633  
-0.01677  
-0.00003

CLMBF  
-0.01643  
-0.01624  
-0.01645  
-0.00000

CLMBF  
-0.01636  
-0.01630  
-0.01650  
-0.00003

CLMBF  
-0.01641  
-0.01631  
-0.01703  
-0.00009



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( 1MES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE8012) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUEJER = .000 SPOBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00018	-.00080	.00013	.00826	.01467	-.01560
-4.000	-.00017	-.00076	.00012	.00838	.01488	-.01582
.000	-.00019	-.00068	.00014	.00838	.01483	-.01583
4.000	-.00023	-.00104	.00016	.00832	.01478	-.01572
8.000	-.00011	-.00049	.00008	.00827	.01469	-.01562
GRADIENT	-.00001	-.00003	.00001	-.00001	-.00001	.00001

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00014	-.00063	.00010	.00834	.01482	-.01575
-4.000	-.00017	-.00079	.00012	.00835	.01483	-.01577
.000	-.00013	-.00059	.00009	.00818	.01452	-.01544
4.000	-.00028	-.00125	.00020	.00836	.01484	-.01578
8.000	-.00013	-.00060	.00010	.00836	.01485	-.01579
GRADIENT	-.00001	-.00006	.00001	.00000	.00000	-.00000

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	MSC	CABF	CNBF	CLMBF
-8.000	-.00027	-.00121	.0019	.00829	.01473	-.01567
-4.000	-.00022	-.00097	.0015	.00820	.01456	-.01548
.000	-.00015	-.00068	.0011	.00816	.01449	-.01540
4.000	-.00019	-.00084	.0012	.00822	.01478	-.01571
8.000	-.00004	-.00020	.0003	.00838	.01488	-.01582
GRADIENT	.00000	.00002	-.00000	.00002	.00003	-.00003

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CL	CABF	CNBF	CLMBF
-8.000	-.00025	-.00114	.0011	.00833	.01479	-.01573
-4.000	-.00021	-.00096	.0011	.00811	.01440	-.01532
.000	-.00014	-.00065	.0001	.00810	.01439	-.01529
4.000	-.00012	-.00052	.0008	.00830	.01475	-.01563
8.000	-.00001	-.00003	.0000	.00841	.01484	-.01568
GRADIENT	.00001	.00005	-.00001	.00002	.00004	-.00005

DATE 08 MAY 76

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TABULATED FORCE DATA - 0A148 ( AYES 11-073-1 )

( FEB012 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CMBF	CLMBF
-8.000	-.00032	-.00143	.00023	.00817	.01450	-.01542
-4.000	-.00022	-.00098	.00016	.00799	.01418	-.01508
.000	-.00020	-.00089	.00014	.00772	.01370	-.01457
4.000	-.00003	-.00014	.00002	.00804	.01428	-.01519
8.000	-.00002	-.00011	.00002	.00795	.01413	-.01502
GRADIENT	.00002	.00011	-.00002	.00001	.00001	-.00001

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

( FEB013 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CMBF	CLMBF
-4.000	-.00014	-.00062	.00010	.00203	.01734	-.01702
.000	-.00016	-.00072	.00012	.00209	.01734	-.01702
4.000	-.00016	-.00072	.00011	.00210	.01739	-.01706
GRADIENT	-.00000	-.00001	.00000	.00000	.00001	-.00001

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CMBF	CLMBF
-4.000	-.00003	-.00012	.00002	.00210	.01743	-.01711
.000	-.00012	-.00052	.00008	.00209	.01729	-.01697
4.000	-.00014	-.00065	.00010	.00211	.01751	-.01718
GRADIENT	-.00001	-.00007	.00001	.00000	.00001	-.00001

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( FEB013 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

CLMBF  
 -.01695  
 -.01648  
 -.01691  
 .00001

CNBF  
 .01728  
 .01679  
 .01723  
 -.00001

CABF  
 .00208  
 .00203  
 .00208  
 -.00000

CLMSC  
 .00003  
 .00011  
 .00010  
 .00001

CASC  
 -.00017  
 -.00069  
 -.00065  
 -.00006

CNSC  
 -.00004  
 -.00015  
 -.00015  
 -.00001

CLMBF  
 -.01740  
 -.01709  
 -.01739  
 .00000

CNBF  
 .01773  
 .01742  
 .01773  
 -.00000

CABF  
 .00214  
 .00210  
 .00214  
 -.00000

CLMSC  
 .00003  
 .00010  
 .00010  
 .00001

CASC  
 -.00021  
 -.00064  
 -.00066  
 -.00006

CNSC  
 -.00005  
 -.00014  
 -.00015  
 -.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

CLMBF  
 -.01759  
 -.01752  
 -.01814  
 -.00007

CNBF  
 .01793  
 .01826  
 .01849  
 .00007

CABF  
 .00216  
 .00220  
 .00223  
 .00001

CLMSC  
 .00001  
 .00008  
 .00014  
 .00002

CASC  
 -.00006  
 -.00053  
 -.00031  
 -.00011

CNSC  
 -.00001  
 -.00012  
 -.00020  
 -.00002

CLMBF  
 -.01759  
 -.01752  
 -.01814  
 -.00007

CNBF  
 .01793  
 .01826  
 .01849  
 .00007

CABF  
 .00216  
 .00220  
 .00223  
 .00001

CLMSC  
 .00001  
 .00008  
 .00014  
 .00002

CASC  
 -.00006  
 -.00053  
 -.00031  
 -.00011

CNSC  
 -.00001  
 -.00012  
 -.00020  
 -.00002

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000

BETA

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

CLMBF  
 -.01828  
 -.01837  
 -.01954  
 -.00015

CNBF  
 .01863  
 .01923  
 .01992  
 .00016

CABF  
 .00225  
 .00232  
 .00240  
 .00002

CLMSC  
 .00004  
 .00011  
 .00019  
 .00003

CASC  
 -.00024  
 -.00071  
 -.00118  
 -.00018

CNSC  
 .00005  
 -.00016  
 -.00026  
 -.00004

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( FEB014 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00020	-.00090	.00014	.00230	.01907	-.01872
.000	-.00016	-.00071	.00011	.00225	.01869	-.01834
4.000	-.00012	-.00053	.00008	.00233	.01931	-.01895
GRADIENT	.00001	.00005	-.00001	.00000	.00003	-.00003

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00008	-.00034	.00005	.00228	.01892	-.01857
.000	-.00017	-.00074	.00012	.00225	.01861	-.01826
4.000	-.00017	-.00076	.00012	.00234	.01935	-.01899
GRADIENT	-.00001	-.00005	.00001	.00001	.00005	-.00005

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00013	-.00059	.00009	.00227	.01881	-.01845
.000	-.00015	-.00070	.00011	.00227	.01882	-.01846
4.000	-.00013	-.00059	.00009	.00235	.01944	-.01908
GRADIENT	.00000	.00000	-.00000	.00001	.00008	-.00008

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00003	-.00012	.00002	.00237	.01968	-.01931
.000	-.00010	-.00045	.00007	.00232	.01923	-.01897
4.000	-.00020	-.00089	.00014	.00241	.01998	-.01961
GRADIENT	-.00002	-.00010	.00002	.00000	.00004	-.00004

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00001	-.00006	.00001	.00240	.01991	-.01954
.000	-.00012	-.00054	.00009	.00242	.02009	-.01971
4.000	-.00014	-.00064	.00010	.00247	.02047	-.02009
GRADIENT	-.00002	-.00007	.00001	.00000	.00007	-.00007

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

( FEB015 ) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = .000 SPOBRK = 35.000  
BOFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.02041  
-.01953  
-.02061  
-.00003

CNBF  
.02080  
.01990  
.02101  
.00003

CABF  
.00251  
.00240  
.00253  
.00000

CLMSC  
.00013  
.00006  
-.00003  
-.00002

CASC  
-.00081  
-.00040  
.00016  
.00012

CNSC  
-.00018  
-.00009  
.00004  
.00003

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
-.01942  
-.01943  
-.02027  
-.00011

CNBF  
.01979  
.01980  
.02065  
.00011

CABF  
.00239  
.00239  
.00249  
.00001

CLMSC  
.00015  
.00010  
-.00002  
-.00002

CASC  
-.00095  
-.00065  
.00013  
.00014

CNSC  
-.00021  
-.00014  
.00003  
.00003

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
-.02050  
-.02040  
-.02085  
-.00005

CNBF  
.02089  
.02040  
.02126  
.00005

CABF  
.00252  
.00246  
.00256  
.00001

CLMSC  
.00010  
.00010  
-.00001  
-.00001

CASC  
-.00062  
-.00064  
.00009  
.00009

CNSC  
-.00014  
-.00014  
.00002  
.00002

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
-.02171  
-.02010  
-.02154  
-.00002

CNBF  
.02213  
.02048  
.02126  
-.00002

CABF  
.00267  
.00247  
.00265  
-.00000

CLMSC  
.00006  
.00008  
.00008  
.00000

CASC  
-.00039  
-.00049  
-.00053  
-.00002

CNSC  
-.00009  
-.00011  
-.00012  
-.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
-.02167  
-.02140  
-.02188  
-.00003

CNBF  
.02208  
.02181  
.02230  
.00003

CABF  
.00266  
.00263  
.00269  
.00000

CLMSC  
.00013  
.00019  
.00016  
.00000

CASC  
-.00083  
-.00122  
-.00100  
-.00002

CNSC  
-.00018  
-.00027  
-.00022  
-.00000

DATE 08 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

PAGE 534

OA148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

( FEBD16 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 REF = 474.8000 IN. YMRP = .0000 IN. YO  
 REF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00001	-.00003	.00000	.00167	.01383	-.01357
.000	-.00005	-.00021	.00003	.00169	.01391	-.01355
4.000	-.00023	-.00105	.00017	.00173	.01432	-.01406
GRADIENT	-.00003	-.00013	.00002	.00001	.00006	-.00006

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00005	-.00022	.00004	.00169	.01396	-.01370
.000	-.00010	-.00043	.00007	.00167	.01391	-.01355
4.000	-.00016	-.00072	.00012	.00172	.01427	-.01400
GRADIENT	-.00001	-.00006	.00001	.00000	.00004	-.00004

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00004	-.00016	.00003	.00157	.01304	-.01280
.000	-.00011	-.00048	.00008	.00155	.01287	-.01263
4.000	-.00011	-.00050	.00008	.00165	.01371	-.01345
GRADIENT	-.00001	-.00004	.00001	.00001	.00008	-.00008

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00001	-.00006	.00001	.00158	.01306	-.01282
.000	-.00017	-.00075	.00012	.00155	.01285	-.01261
4.000	-.00012	-.00053	.00009	.00159	.01321	-.01296
GRADIENT	-.00001	-.00006	.00001	.00000	.00002	-.00002

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00005	-.00024	.00004	.00166	.01380	-.01354
.000	-.00014	-.00064	.00010	.00165	.01370	-.01345
4.000	-.00014	-.00064	.00010	.00175	.01448	-.01421
GRADIENT	-.00001	-.00005	.00001	.00001	.00009	-.00008

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 535

(FE8017) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
BOFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = .600

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00005	-.00021	.00003	.00166	.01377	-.01351
-4.000	-.00005	-.00023	.00004	.00163	.01352	-.01327
.000	-.00006	-.00026	.00004	.00159	.01314	-.01289
4.000	-.00020	-.00090	.00014	.00169	.01401	-.01375
8.000	-.00034	-.00154	.00024	.00176	.01455	-.01427
GRADIENT	-.00002	-.00008	.00001	.00001	.00006	-.00006

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00004	-.00019	.00003	.00167	.01387	-.01361
-4.000	-.00002	-.00007	.00001	.00160	.01324	-.01300
.000	-.00006	-.00025	.00004	.00157	.01302	-.01278
4.000	-.00034	-.00151	.00024	.00168	.01390	-.01364
8.000	-.00037	-.00167	.00027	.00168	.01390	-.01364
GRADIENT	-.00004	-.00018	.00003	.00001	.00008	-.00008

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00005	-.00022	.00003	.00167	.01383	-.01357
-4.000	-.00004	-.00016	.00003	.00160	.01327	-.01302
.000	-.00013	-.00058	.00009	.00149	.01234	-.01211
4.000	-.00034	-.00152	.00024	.00158	.01312	-.01288
8.000	-.00031	-.00141	.00022	.00163	.01355	-.01329
GRADIENT	-.00004	-.00017	.00003	-.00000	-.00002	.00002

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00004	-.00018	.00003	.00171	.01414	-.01388
-4.000	-.00006	-.00026	.00004	.00152	.01256	-.01233
.000	-.00017	-.00078	.00012	.00146	.01214	-.01191
4.000	-.00022	-.00100	.00015	.00151	.01249	-.01226
8.000	-.00035	-.00156	.00025	.00168	.01396	-.01370
GRADIENT	-.00002	-.00009	.00001	-.00000	-.00001	.00001

0A148 -140 A/B/C/R CAVITY, FORCIBODY INCREMENTS I

(FE8017) ( 23 AUG 75 )

## REFERENCE DATA

=	SRF	=	2690.0000	SO.FT.	XMRP	=	1076.5800	IN. X0
=	LRF	=	474.8000	IN.	YMRP	=	.0000	IN. Y0
=	BRF	=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
=	SCALE	=	.0300					

**RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00**

ALPHA = 12.000

	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
BETA						
-8.000	.0001	.00035	-.00006	.00176	.01461	-.01434
-4.000	-.001	.00030	.00005	.00153	.01267	-.01244
.000	-.001	.00000	.00016	.00149	.01237	-.01214
4.000	-.00032	-.00142	.00023	.00159	.01317	-.01292
8.000	-.00034	-.00153	.00024	.00179	.01481	-.01453
GRADIENT	-.00003	-.00014	.00002	.00001	.00006	-.00006

RUDDER	=	.000	SPDBRK	=	35.000
BOFLAP	=	.000	ELVN-L	=	.000
ELVN-R	=	.000	MACH	=	.600

## PARAMETRIC DATA

00A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE8018) ( 23 AUG 75 )

## REFERENCE DATA

SPRF	=	2690.0000	SQ.FT.	XPRP	=	1076.6800	IN. X0
LPFR	=	474.8000	IN.	YPRP	=	.0000	IN. Y0
GRPF	=	936.6800	IN.	ZPRP	=	375.0000	IN. Z0
SCALE	=	.0300					

RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA = -4.000

	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
BETA	-4.000	-.0008	-.0036	-.00148	.01757	-.01658
	.000	-.0009	-.0039	-.00149	.01761	-.01661
4.000	-.0009	-.0039	-.0006	-.00147	.01748	-.01649
GRADIENT	-.0000	-.0000	-.0000	.00000	-.00001	.00001

RUDDER =	.000	SPDBRK =	.000
BOFLAP =	-11.700	ELVN-L =	.000
FLVN-R =	.000	MACH =	1.400

### PARAMETRIC DATA

BN/L =	2.91	GRACIENT INTERVAL =	-5.00/	5.00
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ALPHA = .000

	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
BETA	-4.000	-.00040	.00006	-.00146	.01726	-.01628
	.000	-.00039	.00006	-.00143	.01700	-.01604
	.000	-.00050	.00008	-.00148	.01749	-.01650
GRADIENT	.00001	-.00001	.00000	-.00003	.00003	-.00003

CNBF	CLMBF
.01726	-.01628
.01700	-.01604
.01749	-.01650
.00003	-.00003



REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA -4.000  
 GRADIENT 4.000

CLMSC .00005  
 CASC -.00034  
 CNSC -.00008  
 CABF -.00142  
 CNBF .01682  
 CLMBF -.01586

RUDDER = .000  
 BDFLAP = -11.700  
 ELVN-R = .000  
 ELVN-L = .000  
 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA -4.000  
 GRADIENT 4.000

CLMSC .00003  
 CASC -.00019  
 CNSC -.00004  
 CABF -.00146  
 CNBF .01731  
 CLMBF -.01633

RUDDER = .000  
 BDFLAP = -11.700  
 ELVN-R = .000  
 ELVN-L = .000  
 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA -4.000  
 GRADIENT 4.000

CLMSC .00006  
 CASC -.00038  
 CNSC -.00008  
 CABF -.00153  
 CNBF .01811  
 CLMBF -.01708

RUDDER = .000  
 BDFLAP = -11.700  
 ELVN-R = .000  
 ELVN-L = .000  
 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA -4.000  
 GRADIENT 4.000

CLMSC .00002  
 CASC -.00015  
 CNSC -.00003  
 CABF -.00160  
 CNBF .01903  
 CLMBF -.01795

RUDDER = .000  
 BDFLAP = -11.700  
 ELVN-R = .000  
 ELVN-L = .000  
 MACH = 1.400



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( FEB 80 ) ( 23 AUG 75 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

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ALPHA = .000

BETA

-4.000

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ALPHA = 12.000

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DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

( IFEB021 ) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
 BFLAP = -11.700 ELYN-L = .000  
 ELYN-R = .000 MACH = .900

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.00045	-0.00203	.00032	-0.00119	.01405	-0.01325
.000	-0.00037	-0.00164	.00026	-0.00121	.01438	-0.01356
4.000	-0.00033	-0.00148	.00024	-0.00123	.01463	-0.01380
GRADIENT	.00002	.00007	-0.00001	-0.00001	.00007	-0.00007

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.00048	-0.00217	.00034	-0.00120	.01426	-0.01345
.000	-0.00028	-0.00128	.00020	-0.00117	.01359	-0.01310
4.000	-0.00034	-0.00155	.00025	-0.00113	.01346	-0.01289
GRADIENT	.00002	.00008	-0.00001	.00001	-0.00010	.00009

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.00039	-0.00174	.00028	-0.00110	.01306	-0.01232
.000	-0.00022	-0.00101	.00016	-0.00109	.01292	-0.01219
4.000	-0.00034	-0.00152	.00024	-0.00112	.01333	-0.01257
GRADIENT	.00001	.00003	-0.00000	-0.00000	.00003	-0.00003

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.00027	-0.00121	.00019	-0.00109	.01269	-0.01216
.000	-0.00019	-0.00096	.00014	-0.00107	.01270	-0.01196
4.000	-0.00021	-0.00095	.00015	-0.00109	.01288	-0.01215
GRADIENT	.00001	.00003	-0.00001	.00000	-0.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.00031	-0.00139	.00022	-0.00117	.01391	-0.01312
.000	-0.00025	-0.00111	.00018	-0.00119	.01417	-0.01336
4.000	-0.00023	-0.00105	.00017	-0.00117	.01399	-0.01311
GRADIENT	.00001	.00004	-0.00001	.00000	-0.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1 (FE6022) ( 23 AUG 75 )

REFERENCE DATA

SPEF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0000

PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
BDFLAP = -11.700 ELVN-L = .000  
ELVN-R = .000 MACH = .500

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00039	-.00174	.00028	-.00118	.01398	-.01319
-4.000	-.00044	-.00196	.00031	-.00119	.01414	-.01334
.000	-.00042	-.00191	.00030	-.00116	.01378	-.01300
4.000	-.00040	-.00178	.00028	-.00119	.01407	-.01327
8.000	-.00046	-.00207	.00033	-.00124	.01465	-.01382
GRADIENT	.00001	.00002	-.00000	.00000	-.00001	.00001

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00035	-.00162	.00026	-.00115	.01366	-.01289
-4.000	-.00041	-.00185	.00029	-.00116	.01373	-.01295
.000	-.00037	-.00166	.00026	-.00112	.01332	-.01256
4.000	-.00034	-.00154	.00025	-.00114	.01349	-.01272
8.000	-.00037	-.00165	.00026	-.00119	.01406	-.01327
GRADIENT	.00001	.00004	-.00001	.00000	-.00003	.00003

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 0.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00035	-.00156	.00025	-.00116	.01375	-.01297
-4.000	-.00040	-.00180	.00029	-.00115	.01358	-.01281
.000	-.00029	-.00129	.00021	-.00109	.01290	-.01217
4.000	-.00034	-.00151	.00024	-.00111	.01318	-.01243
8.000	-.00041	-.00183	.00029	-.00117	.01352	-.01303
GRADIENT	.00001	.00004	-.00001	.00000	-.00005	.00005

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00038	-.00170	.00027	-.00119	.01409	-.01323
-4.000	-.00042	-.00197	.00025	-.00109	.01289	-.01216
.000	-.00047	-.00201	.00016	-.00105	.01243	-.01173
4.000	-.00036	-.00160	.00026	-.00106	.01265	-.01212
8.000	-.00042	-.00187	.00030	-.00116	.01370	-.01233
GRADIENT	-.00000	-.00000	.00000	.00000	-.00000	.00000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEED22) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNEF	CLMBF
-8.000	-0.0044	-0.0199	.0032	-0.0116	.0131	-0.0193
-4.000	-0.0040	-0.0180	.0029	-0.0112	.0125	-0.0149
.000	-0.0033	-0.0148	.0023	-0.0106	.0152	-0.0181
4.000	-0.0026	-0.0115	.0018	-0.0109	.0126	-0.0123
8.000	-0.0029	-0.0084	.0012	-0.0121	.0143	-0.0152
GRADIENT	.00002	.00308	-0.0001	.00000	-0.0034	.00003

RUDDER = .000 SPDBRK = .000  
BDFLAP = -11.700 ELVN-L = .000  
ELVN-R = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNEF	CLMBF
-4.000	-0.0015	-0.0066	.0011	.00212	-0.0123	-0.0123
.000	-0.0015	-0.0069	.0011	.00208	.0125	-0.0123
4.000	-0.0015	-0.0069	.0011	.00209	.0125	-0.0123
GRADIENT	-0.0000	-0.0000	.00000	-0.00000	-0.0003	.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNEF	CLMBF
-4.000	-0.0001	-0.0006	.0001	.00209	.0125	-0.0123
.000	-0.0012	-0.0054	.0009	.00208	.0125	-0.0123
4.000	-0.0014	-0.0053	.0010	.00209	.0125	-0.0123
GRADIENT	-0.0002	-0.0007	.00001	-0.00000	-0.0000	.00000

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEED23) ( 23 AUG 75 )

PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
BDFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = 1.400

CLMBF  
-0.0123  
-0.0123  
-0.0123  
-0.0123  
-0.0123  
-0.0123  
-0.0123

CLMBF  
-0.0123  
-0.0123  
-0.0123  
-0.0123  
-0.0123  
-0.0123  
-0.0123

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(FEED23) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNSC  
 -.00003  
 -.00016  
 -.00017  
 -.00002

CASC  
 -.00015  
 -.00073  
 -.00075  
 -.00008

CLMSC  
 -.00002  
 .00012  
 .00012  
 .00001

CABF  
 .00208  
 .00202  
 .00205  
 -.00000

CNSF  
 .01723  
 .01674  
 .01702  
 -.00003

CLMBF  
 -.01691  
 -.01542  
 -.01670  
 .00003

PV/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNSC  
 -.00002  
 -.00015  
 -.00015  
 -.00002

CASC  
 -.00010  
 -.00069  
 -.00069  
 -.00007

CLMSC  
 .00002  
 .00011  
 .00011  
 .00001

CABF  
 .00215  
 .00207  
 .00211  
 -.00000

CNSF  
 .01781  
 .01719  
 .01751  
 -.00004

CLMBF  
 -.01747  
 -.01687  
 -.01718  
 .00004

PV/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNSC  
 -.00001  
 -.00009  
 -.00019  
 -.00002

CASC  
 -.00006  
 -.00039  
 -.00087  
 -.00010

CLMSC  
 .00001  
 .00006  
 .00014  
 .00002

CABF  
 .00216  
 .00219  
 .00222  
 .00001

CNSF  
 .01789  
 .01813  
 .01936  
 .00005

CLMBF  
 -.01756  
 -.01779  
 -.01932  
 -.00005

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNSC  
 .00006  
 -.00014  
 -.00024  
 -.00004

CASC  
 .00027  
 -.00062  
 -.00105  
 -.00017

CLMSC  
 -.00004  
 .00010  
 .00017  
 .00003

CABF  
 .00223  
 .00232  
 .00238  
 .00002

CNSF  
 .01847  
 .01927  
 .01976  
 .00016

CLMBF  
 -.01812  
 -.01831  
 -.01939  
 -.00016

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = .000 ELYN-L = .000  
 ELYN-R = .000 MACH = 1.400

REFERENCE DATA

SREF = 2530.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 935.6200 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00001  
 CASC -4.0001  
 CLMSC .00013  
 CABF .00228  
 CNBF .01889  
 CLMBF -.01854  
 -.01825  
 -.01853  
 -.00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT -.00001  
 CASC -.00038  
 CLMSC .00006  
 CABF .00223  
 CNBF .01946  
 CLMBF -.01812  
 -.01785  
 -.01937  
 -.00003

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00000  
 CASC -.00057  
 CLMSC .00009  
 CABF .00225  
 CNBF .01862  
 CLMBF -.01827  
 -.01857  
 -.01850  
 -.00003

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00002  
 CASC -.00008  
 CLMSC .00001  
 CABF .00234  
 CNBF .01942  
 CLMBF -.01905  
 -.01957  
 -.01901  
 -.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00004  
 CASC -.00019  
 CLMSC .00003  
 CABF .00235  
 CNBF .01944  
 CLMBF -.01908  
 -.01949  
 -.01900  
 -.00008



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I (FE8D25) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

.00002

.00007

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.00001

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ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

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ALPHA = 4.000

BETA

-4.000

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4.000

GRADIENT

.00001

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ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

.00001

.00001

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ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

.00000

.00000

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CLMBF

-.02021

-.01972

-.02020

.00000

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CLMBF

-.01907

-.01917

-.01942

-.00004

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CLMBF

-.01962

-.01930

-.01991

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CLMBF

-.02011

-.01964

-.02035

.00003

.00003

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.00003

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CLMBF

-.02044

-.02059

-.02105

.00008

.00008

.00008

.00008

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TABIN ATEN FORCE DATA - 0A148 ( AMES 11-073-1 )

(FE8D26) ( 23 AUG 75 )

QA148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

## REFERENCE DATA

SREF	=	2630.0000	SQ.FT.	XARP	=	1076.6800	IN.	XO
LSREF	=	474.6300	IN.	YARP	=	.0000	IN.	YO
BSREF	=	936.6300	IN.	ZARP	=	375.0000	IN.	ZO
SCALE	=	.0000						

## PARAMETRIC DATA

RUDDER	=	.000	SPDRK	=	.000
BOFLAP	=	.000	ELVN-L	=	.000
ELVN-R	=	.000	MACH	=	.900

$RNVI$	$=$	3.57	GRADIENT INTERVAL	$=$	-5.00/	5.00
--------	-----	------	-------------------	-----	--------	------

ALPHA =	-4.000	BETA	-4.000	-4.000	CMSC	CASC	CLMSC	CAB	CNBF	CLMBF
					-0.0002	-0.0010	0.0002	0.0000	0.01245	-0.01222
					-0.0004	-0.0017	0.0023	0.0155	-0.01268	-0.01268
					-0.0004	-0.0017	0.0023	0.0155	0.01292	-0.01268
					-0.0015	-0.0037	0.0011	0.0160	0.01327	-0.01322
					-0.0002	-0.0007	0.0001	0.0301	0.00910	-0.00910

BN(1) = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CASC	CLM5C	CMBF	CNBF	CLMBF
.000	.000	.0000	.00000	.00156	.01290	-.01266
.000	.000	.00000	.00000	.00153	.01187	-.01165
.000	.000	.00000	.00010	.00153	.01242	-.01219
.000	.000	.00000	.00000	.00000	.00000	.00000

E:V/	=	3.57	GRADIENT	INTERVAL	=	-5.00/	5.00
------	---	------	----------	----------	---	--------	------

ALPHA =	CLMCF	CNBF	CAEF	CLMSC	CASC	CASC	BETA
+.000	-.01165	.01187	.00143	-.00029	-.00007	-.00007	+.000
-.000	-.01098	.01119	.00135	-.00001	-.00006	-.00001	+.000
+.000	-.01141	.01163	.00140	-.00005	-.00007	-.00007	+.000
-.000	-.03003	-.00003	-.00000	-.00000	-.00000	-.00000	+.000

BNV = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	=	8.000	CNMF	CASC	CLMFC	CABF	CNBF	CLMBF
3E-4		-0.0014	-0.0019	-0.0010	-0.0136	-0.1129	-0.1108	
4.000		-0.0005	-0.0021	-0.0003	-0.0136	-0.1131	-0.1110	
4.000		-0.0013	-0.0038	-0.0009	-0.0142	-0.1180	-0.1158	
4.000		-0.0009	-0.0020	-0.0006	-0.0001	-0.0006	-0.0006	

BNV1 = 3.47 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA =	12.000	CN5C	CASC	CLMSC	CABF	CNBF	CLMBF
BETA	-4.000	-0.010	-0.034	-0.007	.00147	.01217	-.0194
	.000	-0.012	-0.0052	.00008	.00154	.01279	-.01255
	4.000	-0.020	-0.0088	.00014	.00155	.01295	-.01271
CRABENT	.0001	-0.001	-0.0006	.00001	.00001	.00010	-.00010

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

DATE 08 MAY 76

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = .000 SPOBPK = .000  
BDFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = .600

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-0.0016	-0.0070	-0.0011	.00150	.01246	-0.01223	-0.01223
-4.000	-0.0013	-0.0059	.00009	.00144	.01189	-0.01167	-0.01167
.000	-0.0006	-0.0025	.00004	.00145	.01205	-0.01183	-0.01183
4.000	-0.0020	-0.0090	.00014	.00149	.01237	-0.01214	-0.01214
8.000	-0.0032	-0.0143	.00023	.00155	.01288	-0.01264	-0.01264
GRADIENT	-0.0001	-0.0004	.00001	.00001	.00006	-0.00006	-0.00006

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-0.0008	-0.0035	.00006	.00147	.01222	-0.01199	-0.01199
-4.000	-0.0011	-0.0050	.00008	.00142	.01177	-0.01155	-0.01155
.000	-0.0016	-0.0070	.00011	.00139	.01156	-0.01134	-0.01134
4.000	-0.0021	-0.0096	.00015	.00146	.01213	-0.01191	-0.01191
8.000	-0.0033	-0.0148	.00023	.00153	.01266	-0.01243	-0.01243
GRADIENT	-0.0001	-0.0006	.00001	.00001	.00004	-0.00004	-0.00004

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-0.0003	-0.0014	.00002	.00148	.01228	-0.01205	-0.01205
-4.000	-0.0010	-0.0045	.00007	.00139	.01153	-0.01132	-0.01132
.000	-0.0009	-0.0039	.00006	.00133	.01103	-0.01082	-0.01082
4.000	-0.0021	-0.0095	.00015	.00141	.01168	-0.01146	-0.01146
8.000	-0.0026	-0.0118	.00019	.00149	.01233	-0.01210	-0.01210
GRADIENT	-0.0001	-0.0006	.00001	.00001	.00002	-0.00002	-0.00002

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-0.0006	-0.0028	.00004	.00149	.01231	-0.01208	-0.01208
-4.000	-0.0008	-0.0036	.00006	.00132	.01095	-0.01074	-0.01074
.000	-0.0011	-0.0051	.00008	.00129	.01071	-0.01051	-0.01051
4.000	-0.0025	-0.0114	.00018	.00137	.01133	-0.01112	-0.01112
8.000	-0.0024	-0.0110	.00017	.00146	.01211	-0.01189	-0.01189
GRADIENT	-0.0002	-0.0010	.00002	.00001	.00005	-0.00005	-0.00005

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TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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OA148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

1FEBD27) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00003	-.00012	.00002	.00148	.01224	-.01201
-4.000	-.00013	-.00059	.00009	.00139	.01156	-.01134
.000	-.00018	-.00082	.00013	.00135	.01118	-.01097
4.000	-.00023	-.00101	.00016	.00143	.01184	-.01162
8.000	-.00030	-.00133	.00021	.00155	.01288	-.01264
GRADIENT	-.00001	-.00005	.00001	.00000	.00004	-.00004

RUDDER = .000 SPOBRK = .000  
BDFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00013	-.00060	.00010	.00714	.01668	-.01732
.000	-.00017	-.00076	.00012	.00717	.01676	-.01740
4.000	-.00011	-.00048	.00008	.00733	.01711	-.01777
GRADIENT	.00000	.00002	-.00000	.00002	.00005	-.00006

RUDDER = -10.000 SPOBRK = 35.000  
BDFLAP = 16.300 ELVN-L = 10.000  
ELVN-R = .000 MACH = 1.400

PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00023	-.00106	.00017	.00721	.01685	-.01749
.000	-.00024	-.00107	.00017	.00726	.01596	-.01761
4.000	-.00023	-.00102	.00016	.00736	.01720	-.01785
GRADIENT	.00000	.00000	-.00000	.00002	.00004	-.00005

PARAMETRIC DATA

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

REFERENCE DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN.      YMRP = .0000 IN. YO  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.030      SPOBRK = 35.000  
 BDFLAP = 16.300      ELVN-L = 10.000  
 ELVN-R = .000      MACH = 1.400

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000      BETA = 4.000      CLMSE      CLMBF  
 -4.000      -4.000      .00018      .01715  
 .000      .00019      .00014      .01691  
 4.000      -0.0016      .00012      .01717  
 GRADIENT .00001      .00005      .00001      .00000  
 CLMBF  
 -0.01781  
 -0.01755  
 -0.01783  
 -0.00000

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000      BETA = 8.000      CLMSE      CLMBF  
 -4.000      -4.000      .00017      .01731  
 .000      .00024      .00017      .01713  
 4.000      -0.0007      .00005      .01731  
 GRADIENT .00002      .00009      .00001      .00000  
 CLMBF  
 -0.01797  
 -0.01778  
 -0.01797  
 .00000

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000      BETA = 12.000      CLMSE      CLMBF  
 -4.000      -4.000      .00016      .01780  
 .000      .00010      .00007      .01773  
 4.000      .00004      .00003      .01779  
 GRADIENT .00003      .00015      .00002      .00000  
 CLMBF  
 -0.01848  
 -0.01841  
 -0.01847  
 .00000

RN/L = 2.92      GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000      BETA = 16.000      CLMSE      CLMBF  
 -4.000      -4.000      .00009      .01827  
 .000      .00003      .00002      .01805  
 4.000      -0.00004      .00003      .01856  
 GRADIENT .00001      .00005      .00001      .00004  
 CLMBF  
 -0.01897  
 -0.01874  
 -0.01927  
 -0.00004

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 550

(FE8029) ( 23 AUG 75 )

0A148 -140 A/B/C/R CAVITY. FOREBODY INCREMENTS I

# REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00002

CNSC - .00027  
 - .00017  
 - .00011  
 .00002  
 .00009  
 - .00001

CASC - .00119  
 - .00074  
 - .00047  
 .00008  
 .00001

CLMSC .00019  
 .00012  
 .00008  
 .00002

CABF .00803  
 .00804  
 .00818  
 .00002

CNBF .01876  
 .01878  
 .01911  
 .00004

CLMBF - .01948  
 - .01950  
 - .01984  
 - .00004

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00001

CNSC - .00031  
 - .00028  
 - .00024  
 .00001

CASC - .00139  
 - .00126  
 - .00106  
 .00004

CLMSC .00022  
 .00020  
 .00017  
 - .00001

CABF .00801  
 .00802  
 .00815  
 .00002

CNBF .01871  
 .01872  
 .01902  
 .00004

CLMBF - .01942  
 - .01944  
 - .01975  
 - .00004

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00001

CNSC - .00030  
 - .00025  
 - .00019  
 .00001

CASC - .00133  
 - .00112  
 - .00085  
 .00006

CLMSC .00021  
 .00018  
 .00014  
 - .00001

CABF .00821  
 .00819  
 .00813  
 - .00001

CNBF .01918  
 .01914  
 .01898  
 - .00003

CLMBF - .01992  
 - .01987  
 - .01970  
 .00003

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00002

CNSC - .00028  
 - .00025  
 - .00013  
 .00002

CASC - .00125  
 - .00111  
 - .00056  
 .00009

CLMSC .00020  
 .00018  
 .00009  
 - .00001

CABF .00851  
 .00836  
 .00829  
 - .00003

CNBF .01987  
 .01952  
 .01937  
 - .00006

CLMBF - .02063  
 - .02027  
 - .02011  
 .00007

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00002

CNSC - .00028  
 - .00022  
 - .00008  
 .00002

CASC - .00127  
 - .00097  
 - .00038  
 .00011

CLMSC .00020  
 .00015  
 .00005  
 - .00002

CABF .00873  
 .00860  
 .00852  
 - .00003

CNBF .02038  
 .02009  
 .01989  
 - .00006

CLMBF - .02116  
 - .02086  
 - .02065  
 .00005

## PARAMETRIC DATA

RUDDER = 35.000  
 BDFLAP = 10.000  
 ELWN-R = 1.250

SPDBRK = 10.000  
 ELVN-L = 16.300  
 MACH = .000

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

( FEB030 ) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-0.0026	-0.0118	.00019	.00923	.02155	-.02238
-0.00024	-0.0110	.00017	.00899	.02100	-.02180
-0.00019	-0.00865	.00014	.00909	.02122	-.02204
.00001	.00004	-.00001	-.00002	-.00004	.00004
GRADIENT					

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-0.00027	-0.0121	.00019	.00912	.02130	-.02212
-0.00026	-0.0118	.00019	.00897	.02095	-.02175
-0.00024	-0.0109	.00017	.00892	.02083	-.02163
.00000	.00002	-.00000	-.00002	-.00006	.00006
GRADIENT					

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-0.00025	-0.0111	.00018	.00911	.02127	-.02208
-0.00027	-0.0121	.00019	.00887	.02073	-.02152
-0.00022	-0.0099	.00016	.00887	.02071	-.02151
.00000	.00002	-.00000	-.00003	-.00007	.00007
GRADIENT					

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-0.00027	-0.0120	.00019	.00967	.02259	-.02346
-0.00027	-0.0121	.00019	.00927	.02155	-.02249
-0.00014	-0.0064	.00010	.00918	.02143	-.02225
.00002	.00007	-.00001	-.00006	-.00015	.00015
GRADIENT					

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-0.00019	-0.0087	.00014	.00960	.02242	-.02328
-0.00020	-0.0089	.00014	.00925	.02161	-.02244
-0.00007	-0.0033	.00005	.00949	.02216	-.02301
.00002	.00007	-.00001	-.00001	-.00003	.00003
GRADIENT					

DATE 08 MAY '76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( FEED31 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2693.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 336.6200 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0350

## PARAMETRIC DATA

RUDDER = -10.000 SPOSRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .900

RV/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CMSC  
 -.0011  
 -.0019  
 -.0021  
 -.0021

CASC  
 -.00051  
 -.00083  
 -.00096  
 -.00098

CLMSC  
 .00008  
 .00013  
 .00015  
 .00001

CABF  
 .00620  
 .00659  
 .00676  
 .00607

CNBF  
 .01449  
 .01538  
 .01579  
 .00016

CLMEF  
 -.01504  
 -.01597  
 -.01640  
 -.00017

RV/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -.4.000  
 .000  
 .000  
 GRADIENT

CMSC  
 -.0025  
 -.0024  
 -.0022  
 .0000

CASC  
 -.0014  
 -.00108  
 -.00100  
 .00022

CLMSC  
 .00016  
 .00017  
 .00016  
 -.00003

CABF  
 .00644  
 .00655  
 .00672  
 .00004

CNBF  
 .01504  
 .01530  
 .01570  
 .00008

CLMEF  
 -.01562  
 -.01599  
 -.01630  
 -.00003

RV/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -.4.000  
 .000  
 .000  
 GRADIENT

CMSC  
 -.0028  
 -.0028  
 -.0026  
 .0000

CASC  
 -.00127  
 -.00124  
 -.00074  
 .00007

CLMSC  
 .00020  
 .00020  
 .00012  
 -.00001

CABF  
 .00650  
 .00643  
 .00649  
 -.00000

CNBF  
 .01519  
 .01503  
 .01516  
 -.00000

CLMEF  
 -.01577  
 -.01550  
 -.01574  
 .00000

RV/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 5.000

BETA  
 -.4.000  
 .000  
 .000  
 GRADIENT

CMSC  
 -.0028  
 -.0028  
 -.0024  
 .00001

CASC  
 -.00127  
 -.00124  
 -.00074  
 .00006

CLMSC  
 .00018  
 .00013  
 .00010  
 -.00001

CABF  
 .00642  
 .00651  
 .00658  
 .00002

CNBF  
 .01498  
 .01521  
 .01537  
 .00005

CLMEF  
 -.01556  
 -.01579  
 -.01595  
 -.00005

RV/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -.4.000  
 .000  
 .000  
 GRADIENT

CMSC  
 -.0028  
 -.0028  
 -.0024  
 .00001

CASC  
 -.00127  
 -.00124  
 -.00074  
 .00005

CLMSC  
 .00017  
 .00003  
 -.00001  
 -.00001

CABF  
 .00616  
 .00614  
 .00638  
 .00003

CNBF  
 .01439  
 .01435  
 .01489  
 .00005

CLMEF  
 -.01494  
 -.01489  
 -.01545  
 -.00016



REFERENCE DATA

SPEF = 2693.0000 SQ.FT.

LMREF = 474.8000 IN.

BMREF = 936.6800 IN.

SCALE = .0300

YMRP = 1076.6800 IN. X0

YMRP = .0000 IN. Y0

ZMRP = 375.0000 IN. Z0

PARAMETRIC DATA

RUDDER = 35.000

BDFLAP = 10.000

ELVN-R = .600

SPOBRK = 16.300

ELVN-L = .000

MACH = .000

ALPHA = -4.000

CNSC

CASC

CLMSC

CABF

CNBF

CLMBF

BETA

.00010

.00047

-.00007

.00530

.01237

-.01284

-8.000

.00013

.00059

-.00009

.00537

.01254

-.01302

.000

-.00011

-.00049

.00008

.00560

.01308

-.01358

4.000

-.00020

-.00069

.00014

.00553

.01291

-.01341

8.000

-.00016

-.00073

.00012

.00579

.01351

-.01403

GRADIENT

-.00034

-.00018

.00003

.00002

.00005

-.00005

RN/L = 4.82

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

CNSC

CASC

CLMSC

CABF

CNBF

CLMBF

BETA

.00006

.00026

-.00004

.00525

.01226

-.01273

-8.000

.00009

.00041

.00007

.00536

.01251

-.01299

.000

-.00027

-.00120

.00019

.00570

.01330

-.01381

4.000

-.00027

-.00122

.00019

.00588

.01372

-.01425

8.000

-.00022

-.00101

.00016

.00602

.01426

-.01460

GRADIENT

-.00032

-.00010

.00002

.00006

.00015

-.00016

RN/L = 4.81

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

CNSC

CASC

CLMSC

CABF

CNBF

CLMBF

BETA

.00015

.00067

.00011

.00531

.01240

-.01287

-8.000

.00027

.00121

.00019

.00554

.01293

-.01342

.000

-.00026

-.00116

.00018

.00583

.01362

-.01414

4.000

-.00023

-.00104

.00017

.00614

.01434

-.01489

8.000

-.00025

-.00111

.00018

.00606

.01414

-.01469

GRADIENT

.00000

.00002

-.00000

.00008

.00018

-.00018

RN/L = 4.81

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 3.000

CNSC

CASC

CLMSC

CABF

CNBF

CLMBF

BETA

.00026

.00116

.00018

.00552

.01288

-.01338

-8.000

.00017

.00077

.00018

.00550

.01285

-.01334

.000

-.00022

-.00100

.00016

.00577

.01347

-.01398

4.000

-.00022

-.00098

.00016

.00616

.01438

-.01493

8.000

-.00031

-.00139

.00022

.00629

.01470

-.01526

GRADIENT

-.00001

-.00003

.00000

.00008

.00019

-.00020

RN/L = 4.82

GRADIENT INTERVAL = -5.00/ 5.00

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEB032) ( 23 AUG 75 )

REFERENCE DATA

REF = 2693.0000 SQ.FT. XMRP = 1076.6900 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPDERK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 PACH = .600

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CASC	CLMSC	CABF	CNBF	CUMF
-8.000	-0.0161	.00026	.00563	.01309	.01359
-4.000	-0.0111	.00018	.00555	.01259	.01346
.000	-0.0062	.00010	.00535	.01249	.01297
4.000	-0.0037	.00015	.00580	.01354	.01406
8.000	-0.0150	.00024	.00593	.01435	.01493
GRADIENT	.00002	- .00000	.00003	.00001	.00000

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEB032) ( 23 AUG 75 )

REFERENCE DATA

REF = 2693.0000 SQ.FT. XMRP = 1076.6900 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPDERK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 PACH = .600

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CASC	CLMSC	CABF	CNBF	CUMF
-8.000	-0.0104	.00017	.00701	.01637	.01689
-4.000	-0.0093	.00015	.00695	.01522	.01604
.000	-0.0081	.00015	.00719	.01579	.01642
4.000	-0.0094	.00020	.00702	.00000	.00000
8.000	.00001	- .00000	.00000	.00000	.00000
GRADIENT	.00000	- .00000	.00000	.00000	.00000

ALPHA = 12.000

BETA	CASC	CLMSC	CABF	CNBF	CUMF
-8.000	-0.0009	.00006	.00701	.01637	.01689
-4.000	-0.0008	.00006	.00687	.01603	.01625
.000	-0.0004	.00003	.00697	.01537	.01599
4.000	-0.0001	- .00000	- .00001	.00000	.00000
8.000	.00001	- .00000	- .00001	.00000	.00000
GRADIENT	.00000	- .00000	- .00001	.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY. FOREBODY INCREMENTS 1

(FEB033) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER = 10.000 SPOBRK = 35.000  
BDFLAP = 16.300 ELVN-L = .000  
ELVN-R = 10.000 MACH = 1.400

PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

.000

.000

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.000

.000

CLMBF

-.01741

-.01690

-.01655

-.00006

CNBF

.01677

.01618

.01632

-.00006

CABF

.00718

.00693

.00699

-.00002

CLMSC

.00004

.00005

.00004

-.00000

CASC

-.00026

-.00032

-.00022

.00000

CNSC

-.00008

-.00007

-.00005

.00000

CNSC

-.00020

-.00010

-.00009

.00001

CASC

-.00090

-.00047

-.00042

.00006

CLMSC

.00014

.00007

.00007

-.00001

CASC

-.00090

-.00047

-.00042

.00006

CNSC

-.00020

-.00010

-.00009

.00001

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

.000

.000

.000

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.000

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.000

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.000

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.000

CLMBF

-.01610

-.01745

-.0 736

.00009

CNBF

.01743

.01690

.01672

-.00009

CABF

.00746

.00719

.00716

-.00004

CLMSC

.00014

.00007

.00007

-.00001

CASC

-.00090

-.00047

-.00042

.00006

CNSC

-.00020

-.00010

-.00009

.00001

CASC

-.00090

-.00047

-.00042

.00006

CLMSC

.00018

.00016

.00014

-.00001

CASC

-.00115

-.00101

-.00096

.00004

CNSC

-.00026

-.00022

-.00019

.00001

CASC

-.00115

-.00101

-.00096

.00004

CNSC

-.00026

-.00022

-.00019

.00001

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

.000

.000

.000

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.000

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.000

.000

.000

.000

.000

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.000

.000

.000

.000

.000

CLMBF

-.01905

-.01838

-.01846

.00009

CNBF

.01836

.01770

.01778

-.00007

CABF

.00786

.00758

.00761

-.00003

CLMSC

.00018

.00016

.00014

-.00001

CASC

-.00115

-.00101

-.00096

.00004

CNSC

-.00026

-.00022

-.00019

.00001

CASC

-.00115

-.00101

-.00096

.00004

CNSC

-.00026

-.00022

-.00019

.00001

CASC

-.00115

-.00101

-.00096

.00004

CNSC

-.00026

-.00022

-.00019

.00001

CASC

-.00115

-.00101

-.00096

.00004

CNSC

-.00026

-.00022

-.00019

.00001

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000

BETA

-4.000

.000

.000

.000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 (AMES 11-073-1)

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEED34) ( 23 AUG 75 )

REFERENCE DATA

REF = 2650.000 SQ. FT. XMRP = 1076.6800 IN. YO  
 LREF = 474.6300 IN. YMRP = .0000 IN. YO  
 GREF = 335.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

14.000

14.000

14.000

14.000

14.000

14.000

14.000

14.000

14.000

14.000

14.000

14.000

14.000

14.000

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PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = 35.000  
 BOFLAP = 16.300 LVN-L = .000  
 ELVN-R = 10.000 MACH = 1.250

CNLF  
 .01825  
 .01782  
 .01813  
 .01822  
 .01822

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

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RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

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RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

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RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

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RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

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STATE-ATTENDED FORCE DATA - 0A148 (AES 11-073-1)

CAVITY - 140 A/B/C/B CAVITY. FOREBODY INCREMENTS !

1546735 1 23 AUG 75

REFERENCE DATA

896E	=	295' .0000	SQ. FT.		YRBP	=	1076.6600	IN. ZO
896F	=	157' .6000	IN.		YRBP	=	.0000	IN. YO
896G	=	936.6600	IN.		ZRBP	=	375.0000	IN. ZO
896H	=	.0000						

SEMI	=	3.18	GRADIENT INTERVAL	=	-5.00/	5.00
------	---	------	-------------------	---	--------	------

$$A_{\text{P-HA}} = -1.033$$

BETA	CYC
- .0001	- .0001
.0001	.0001
.0009	.0009
GACILET	.0001

[illegible]

GRADIENT INTERVAL = -5.00/ 5 00

ALPHA = .000

CRAC12.1	0.0001
-	0.0003
-	0.0016
-	0.0012
CRAC	0.0000

[illegible]

EV.L	=	3.18	GRADIENT	INTERVAL	=	-5.00/	5.00
------	---	------	----------	----------	---	--------	------

ALPHA = .05

GRADIENT	4.0000
BEta	-4.0000
CNSC	- .00019
	- .00022
	- .00015
	.00000

[illegible]

$R^2/L = 3.18$     GRADIENT INTERVAL = -5.00/    5.00

ALPHA = 0.0003

BETA	0.0030
0.0024	0.0024
0.0020	0.0020
0.0014	0.0014
0.0010	0.0010
0.0004	0.0004
0.0001	0.0001
0.0000	0.0000

[illegible]

SN/L =	3.18	GRADIENT INTERVAL =	-5.00%	5.00
--------	------	---------------------	--------	------

$$\text{ALPFA} = 12.000$$

BETA	CNSC
-4.000	-0.0026
.000	-0.0030
.000	-0.0014
SPACIENT	-0.0001

1:00	1:00
1:00	05:30
1:00	26:20
1:00	4:50
1:00	45:0

PARANETRIC DATA

RUBBER	=	10.000	SEDER	=	35.000
ES-LAP	=	16.300	ELV-L	=	.000
ELV-L	=	10.000	MCH	=	1.100

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( FEB836 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0009	-0.0041	.00006	.02665	.01552	-0.01612
.000	-0.0009	-0.0039	.00006	.02645	.01506	-0.01563
4.000	-0.0022	-0.0097	.00015	.02621	.01449	-0.01505
GRADIENT	-0.0002	-0.0007	.00001	-0.0005	-0.0013	.00013

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0008	-0.0034	.00005	.02659	.01539	-0.01598
.000	-0.0002	-0.0009	.00001	.02613	.01431	-0.01486
4.000	-0.0010	-0.0044	.00027	.02617	.01442	-0.01497
GRADIENT	-0.0000	-0.0001	.00000	-0.0005	-0.0012	.00013

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0009	-0.0041	.00007	.02644	.01503	-0.01561
.000	-0.0004	-0.0019	.00003	.02610	.01426	-0.01480
4.000	-0.0009	-0.0039	.00006	.02597	.01235	-0.01448
GRADIENT	.00002	.00010	-0.00002	-0.0006	-0.0014	.00014

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0004	-0.0018	.00003	.02645	.01506	-0.01564
.000	.00001	.00006	-0.00001	.02607	.01418	-0.01472
4.000	-0.0002	.00010	-0.00002	.02589	.01375	-0.01428
GRADIENT	.00001	.00004	-0.00001	-0.0007	-0.0016	.00017

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0022	-0.0099	.00016	.02648	.01512	-0.01570
.000	-0.0017	-0.0075	.00012	.02611	.01427	-0.01481
4.000	-0.0020	-0.0091	.00015	.02622	.01452	-0.01507
GRADIENT	.00000	.00001	-0.00000	-0.0003	-0.0008	.00008

(FE0037) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

PARAMETRIC DATA

RUDDER = 10.000  
BOFLAP = 16.300  
ELVN-R = 10.000  
MACH = 35.000  
ELVN-L = .000  
MACH = .600

REFERENCE DATA

SPEF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300  
XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA = -8.000  
CASC = .00038  
CNCS = .00008  
CLMSC = .00006  
CABF = .00561  
CNEF = .01309  
CLMBF = -.01360  
GRADIENT = 8.000  
BETA = -4.000  
CASC = -.00037  
CNCS = -.00008  
CLMSC = .00015  
CABF = .00558  
CNEF = .01304  
CLMBF = -.01353  
GRADIENT = 4.000  
BETA = .000  
CASC = -.00095  
CNCS = .00021  
CLMSC = .00022  
CABF = .00541  
CNEF = .01264  
CLMBF = -.01313  
GRADIENT = 8.000  
BETA = 4.000  
CASC = -.00136  
CNCS = -.00030  
CLMSC = .00021  
CABF = .00544  
CNEF = .01270  
CLMBF = -.01319  
GRADIENT = 8.000  
BETA = 8.000  
CASC = -.00134  
CNCS = -.00030  
CLMSC = .00021  
CABF = .00554  
CNEF = .01294  
CLMBF = -.01343  
GRADIENT = 8.000  
BETA = 8.000  
CASC = -.00012  
CNCS = -.00003  
CLMSC = .00002  
CABF = -.00002  
CNEF = -.00004  
CLMBF = .00004

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA = -8.000  
CASC = .00010  
CNCS = .00002  
CLMSC = .00002  
CABF = .00577  
CNEF = .01348  
CLMBF = -.01399  
GRADIENT = 4.000  
BETA = -4.000  
CASC = .00036  
CNCS = .00008  
CLMSC = .00007  
CABF = .00551  
CNEF = .01300  
CLMBF = -.01350  
GRADIENT = 4.000  
BETA = .000  
CASC = -.00047  
CNCS = .00010  
CLMSC = .00020  
CABF = .00541  
CNEF = .01268  
CLMBF = -.01337  
GRADIENT = 4.000  
BETA = 4.000  
CASC = -.00125  
CNCS = -.00028  
CLMSC = .00021  
CABF = .00540  
CNEF = .01263  
CLMBF = -.01311  
GRADIENT = 8.000  
BETA = 8.000  
CASC = -.00134  
CNCS = -.00030  
CLMSC = .00021  
CABF = .00540  
CNEF = .01260  
CLMBF = -.01308  
GRADIENT = 8.000  
BETA = 8.000  
CASC = -.00020  
CNCS = -.00004  
CLMSC = .00003  
CABF = -.00002  
CNEF = -.00005  
CLMBF = .00005

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA = -8.000  
CASC = .00001  
CNCS = .00000  
CLMSC = .00000  
CABF = .00582  
CNEF = .01358  
CLMBF = -.01410  
GRADIENT = 4.000  
BETA = -4.000  
CASC = .00026  
CNCS = .00006  
CLMSC = .00010  
CABF = .00541  
CNEF = .01263  
CLMBF = -.01364  
GRADIENT = 4.000  
BETA = .000  
CASC = -.00064  
CNCS = .00014  
CLMSC = .00012  
CABF = .00541  
CNEF = .01242  
CLMBF = -.01290  
GRADIENT = 4.000  
BETA = 4.000  
CASC = -.00073  
CNCS = .00016  
CLMSC = .00007  
CABF = .00525  
CNEF = .01226  
CLMBF = -.01273  
GRADIENT = 8.000  
BETA = 8.000  
CASC = -.00043  
CNCS = -.00010  
CLMSC = .00007  
CABF = .00525  
CNEF = .01226  
CLMBF = -.00009  
GRADIENT = 8.000  
BETA = 8.000  
CASC = -.00012  
CNCS = -.00003  
CLMSC = .00002  
CABF = -.00004  
CNEF = -.00009  
CLMBF = .00009

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA = -8.000  
CASC = .00013  
CNCS = .00003  
CLMSC = .00002  
CABF = .00597  
CNEF = .01370  
CLMBF = -.01422  
GRADIENT = 4.000  
BETA = -4.000  
CASC = .00066  
CNCS = .00015  
CLMSC = .00011  
CABF = .00560  
CNEF = .01307  
CLMBF = -.01357  
GRADIENT = 4.000  
BETA = .000  
CASC = -.00071  
CNCS = .00016  
CLMSC = .00011  
CABF = .00525  
CNEF = .01225  
CLMBF = -.01272  
GRADIENT = 4.000  
BETA = 4.000  
CASC = -.00044  
CNCS = .00010  
CLMSC = .00007  
CABF = .00515  
CNEF = .01202  
CLMBF = -.01248  
GRADIENT = 8.000  
BETA = 8.000  
CASC = -.00041  
CNCS = -.00009  
CLMSC = .00007  
CABF = .00534  
CNEF = .01248  
CLMBF = -.01295  
GRADIENT = 8.000  
BETA = 8.000  
CASC = -.00003  
CNCS = .00001  
CLMSC = -.00000  
CABF = -.00006  
CNEF = -.00013  
CLMBF = .00014

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEB037) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT .00002

CNSC  
 -.00029  
 -.00021  
 -.00015  
 -.00010  
 -.00008  
 -.00006  
 -.00004  
 -.00001

CASC  
 -.00130  
 -.00096  
 -.00044  
 -.00038  
 -.00028  
 -.00007

CLMSC  
 .00021  
 .00015  
 .00007  
 .00006  
 .00004  
 -.00001

CABF  
 .00571  
 .00544  
 .00527  
 .00539  
 .00533  
 -.00001

CNBF  
 .01335  
 .01269  
 .01231  
 .01256  
 .01245  
 -.00002

CLMBF  
 -.01386  
 -.01318  
 -.01278  
 -.01304  
 -.01293  
 .00002

RUDDER = 10.000 SPDBRK = 35.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT -.00001

CNSC  
 -.00013  
 -.00017  
 -.00019  
 -.00001

CASC  
 -.00060  
 -.00077  
 -.00083  
 -.00003

CLMSC  
 .00010  
 .00012  
 .00013  
 .00000

CABF  
 .00553  
 .00675  
 .00702  
 .00006

CNBF  
 .01526  
 .01576  
 .01639  
 .00014

CLMBF  
 -.01584  
 -.01637  
 -.01702  
 -.00015

RUDDER = 10.000 SPDBRK = 65.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

PARAMETRIC DATA

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT -.00002

CNSC  
 -.00020  
 -.00022  
 -.00024  
 -.00000

CASC  
 -.00091  
 -.00099  
 -.00109  
 -.00002

CLMSC  
 .00015  
 .00016  
 .00017  
 .00000

CABF  
 .00700  
 .00696  
 .00710  
 .00001

CNBF  
 .01634  
 .01626  
 .01658  
 .00003

CLMBF  
 -.01697  
 -.01689  
 -.01722  
 -.00003



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE8038) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.3000 IN. YMRP = .0000 IN. YO  
 BRFF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 65.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT  
 .00000

CNBF  
 .01750  
 -.01702  
 -.01725  
 .00003

CNBF  
 .01685  
 .01639  
 .00712  
 -.00001

CABF  
 .00722  
 .00702  
 .00712  
 -.00001

CASC  
 -.00080  
 -.00097  
 -.00076  
 .00000

CNISC  
 -.00018  
 -.00021  
 -.00017  
 .00000

CLMSC  
 .00013  
 .00015  
 .00012  
 -.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT  
 .00001

CNBF  
 -.01801  
 -.01753  
 -.01788  
 .00002

CNBF  
 .01735  
 .01688  
 .01722  
 -.00002

CABF  
 .00743  
 .00723  
 .00737  
 -.00001

CASC  
 -.00089  
 -.00113  
 -.00037  
 .00006

CNISC  
 -.00020  
 -.00025  
 -.00008  
 .00001

CLMSC  
 .00014  
 .00018  
 .00005  
 -.00001

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT  
 .00003

CNBF  
 -.01873  
 -.01834  
 -.01868  
 .00001

CNBF  
 .01804  
 .01766  
 .01800  
 -.00001

CABF  
 .00772  
 .00756  
 .00771  
 -.00000

CASC  
 -.00112  
 -.00112  
 -.00011  
 .00013

CNISC  
 -.00025  
 -.00025  
 -.00002  
 .00003

CLMSC  
 .00018  
 .00018  
 .00002  
 -.00002

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT  
 .00004

CNBF  
 -.01835  
 -.01891  
 -.01931  
 -.00012

CNBF  
 .01768  
 .01822  
 .01860  
 .00012

CABF  
 .00757  
 .00780  
 .00797  
 .00005

CASC  
 -.00132  
 -.00076  
 -.00002  
 .00016

CNISC  
 -.00029  
 -.00017  
 -.00001  
 .00004

CLMSC  
 .00021  
 .00012  
 .00000  
 -.00003



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( FEB040 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

.00001

.00003

.00013

.00025

.00036

.00040

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RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

.00001

.00003

.00013

.00025

.00036

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

.00001

.00003

.00013

.00025

.00036

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

.00040

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

.00001

.00003

.00013

.00025

.00036

.00040

.00040

.00040

.00040

.00040

.00040

.00040

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

.00001

.00003

.00013

.00025

CNBF .02102  
 CLMBF -.02183  
 CLMBF -.02143  
 CLMBF -.02202  
 CLMBF -.02102

CNBF .02102  
 CLMBF -.02183  
 CLMBF -.02143  
 CLMBF -.02202  
 CLMBF -.02102

CNBF .02152  
 CLMBF -.02235  
 CLMBF -.02230  
 CLMBF -.02265  
 CLMBF -.02004

CNBF .02300  
 CLMBF -.02388  
 CLMBF -.02347  
 CLMBF -.02373  
 CLMBF -.02002

CNBF .02330  
 CLMBF -.02419  
 CLMBF -.02321  
 CLMBF -.02372  
 CLMBF -.02006

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE9D41) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 EREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

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4.000

GRADIENT

-4.000

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GRADIENT

-4.000

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GRADIENT

-4.000

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GRADIENT

-4.000

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4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

ALPHA =

BETA

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

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GRADIENT

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-4.000

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4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

4.000

GRADIENT

-4.000

.000

CLMBF

-0.01946

-0.01693

-0.01623

-0.01797

-0.00010

-0.00004

-0.00002

-0.00003

-0.00003

-0.00003

-0.00003

-0.00003

-0.00003

-0.00003

-0.00003

-0.00003

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-0.00003

-0.00003

-0.00003

-0.00003

-0.00003

-0.00003

(FEB042) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY. FOREBODY INCREMENTS 1

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
BDFLAP = 15.300 ELVN-L = 10.000  
ELVN-R = 10.000 MACH = .600

REFERENCE DATA

SREF = 2.90.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-8.000  
-4.000  
-4.000  
4.000  
8.000  
GRADIENT  
CASC  
.00093  
.00049  
.00113  
.00025  
.00047  
.00043  
.00007  
CLMSC  
.00015  
.00008  
.00018  
.00034  
.00031  
.00031  
.00005  
CABF  
.00652  
.00644  
.00669  
.00718  
.00722  
.00009  
CNBF  
.01522  
.01504  
.01562  
.01678  
.01687  
.00022  
CLMBF  
-.01580  
-.01562  
-.01622  
-.01742  
-.01751  
-.00023

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-8.000  
-4.000  
-4.000  
4.000  
8.000  
GRADIENT  
CASC  
.00053  
.00088  
.00059  
.00194  
.00187  
.00035  
CLMSC  
-.00008  
-.00014  
.00009  
.00031  
.00030  
.00006  
CABF  
.00657  
.00650  
.00669  
.00724  
.00729  
.00008  
CNBF  
.01535  
.01542  
.01562  
.01691  
.01703  
.00019  
CLMBF  
-.01593  
-.01601  
-.01622  
-.01756  
-.01768  
-.00019

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-8.000  
-4.000  
-4.000  
4.000  
8.000  
GRADIENT  
CASC  
.00037  
.00043  
.00075  
.00199  
.00172  
.00030  
CLMSC  
-.00006  
-.00012  
.00032  
.00027  
.00035  
CABF  
.00666  
.00667  
.00650  
.00724  
.00730  
.00007  
CNBF  
.01556  
.01558  
.01519  
.01691  
.01705  
.00017  
CLMBF  
-.01616  
-.01618  
-.01577  
-.01756  
-.01770  
-.00017

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 0.000  
BETA  
-8.000  
-4.000  
-4.000  
4.000  
8.000  
GRADIENT  
CASC  
.00033  
.00032  
.00085  
.00149  
.00164  
.00023  
CLMSC  
-.00005  
-.00005  
.00024  
.00026  
.00004  
CABF  
.00677  
.00654  
.00646  
.00730  
.00756  
.00010  
CNBF  
.01580  
.01527  
.01509  
.01705  
.01767  
.00022  
CLMBF  
-.01641  
-.01585  
-.01567  
-.01770  
-.01834  
-.00023

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

(FE8D42) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDERK = 85.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CMBF
-8.000	-.00032	-.00142	.00023	.00637	.01488
-4.000	-.00023	-.00101	.00016	.00552	.01523
.000	-.00030	-.00135	.00021	.00631	.01473
4.000	-.00040	-.00182	.00029	.00717	.01674
8.000	-.00042	-.00189	.00030	.00721	.01684
GRADIENT	-.00002	-.00010	.00002	.00008	.00013

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

(FE8D43) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDERK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

RN/L = 3.67 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CMBF
-4.000	-.00026	-.00117	.00019	.00941	.01572
.000	-.00023	-.00104	.00016	.00925	.01642
4.000	-.00015	-.00069	.00011	.00824	.01746
GRADIENT	.00001	.00006	-.00001	-.00002	.00004

RN/L = 3.65 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CMBF
-4.000	-.00021	-.00134	.00015	.00918	.01733
.000	-.00023	-.00103	.00016	.00882	.01666
4.000	-.00019	-.00088	.00014	.00899	.01597
GRADIENT	.00000	.00001	-.00000	-.00002	.00004

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

DATE 08 MAY 76

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.5800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER = .000 SPOBRK = 55.000  
BDFLAP = 22.500 ELVN-L = 10.000  
ELVN-R = 10.000 MACH = .900

RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
CLMSC  
-.00019  
-.00024  
-.00018  
-.00000  
CASC  
-.00085  
-.00108  
-.00082  
-.00000  
CLMBF  
-.01669  
-.01643  
-.01682  
-.00002  
CNBF  
.01569  
.01545  
.01582  
.00002  
CABF  
.00884  
.00870  
.00891  
.00001

RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
CLMSC  
-.00017  
-.00021  
-.00021  
-.00000  
CASC  
-.00078  
-.00095  
-.00033  
-.00002  
CLMBF  
-.01684  
-.01673  
-.01707  
-.00003  
CNBF  
.01584  
.01573  
.01606  
.00003  
CABF  
.00892  
.00885  
.00904  
.00002

RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
CLMSC  
-.00025  
-.00028  
-.00027  
-.00000  
CASC  
-.00112  
-.00126  
-.00122  
-.00001  
CLMBF  
-.01890  
-.01760  
-.01829  
-.00008  
CNBF  
.01778  
.01555  
.01720  
-.00007  
CABF  
.01001  
.00932  
.00958  
-.00004

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE8044) ( 23 AUG 75 )

## REFERENCE DATA

SPDF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 EREF = 936.6900 IN.  
 SCALE = .0300

XMRP = 1076.6900 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = .0000 SPDRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00007	-.00031	.00005	.00792	.01407	-.01455
-4.000	-.00008	-.00038	.00006	.00779	.01394	-.01471
.000	-.00013	-.00060	.00009	.00779	.01364	-.01471
4.000	-.00020	-.00090	.00014	.00782	.01399	-.01477
8.000	-.00018	-.00080	.00013	.00793	.01408	-.01457
GRADIENT	-.00001	-.00007	.00001	.00000	.00001	-.00001

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00010	-.00046	.00007	.00805	.01430	-.01421
-4.000	-.00011	-.00047	.00008	.00794	.01411	-.01400
.000	-.00016	-.00037	.00006	.00777	.01380	-.01457
4.000	-.00021	-.00034	.00015	.00792	.01407	-.01455
8.000	-.00022	-.00038	.00016	.00817	.01451	-.01453
GRADIENT	-.00001	-.00006	.00001	-.00000	-.00001	.00001

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00011	-.00050	.00009	.00809	.01436	-.01527
-4.000	-.00008	-.00036	.00006	.00807	.01433	-.01524
.000	-.00011	-.00051	.00009	.00771	.01370	-.01455
4.000	-.00023	-.00102	.00016	.00797	.01415	-.01505
8.000	-.00030	-.00136	.00022	.00846	.01502	-.01597
GRADIENT	-.00002	-.00009	.00001	-.00001	-.00002	.00002

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00009	-.00039	.00006	.00878	.01470	-.01563
-4.000	-.00006	-.00026	.00004	.00789	.01401	-.01490
.000	-.00027	-.00121	.00019	.00765	.01350	-.01446
4.000	-.00023	-.00104	.00017	.00797	.01415	-.01504
8.000	-.00032	-.00145	.00023	.00858	.01535	-.01621
GRADIENT	-.00002	-.00010	.00002	.00001	.00002	-.00002



DATE 08 MAY 76

TABLED FORCE DATA - 0A148 ( AMES 11-073-1 )

( FEB044 ) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
-8.000  
-4.000  
.000  
4.000  
9.000  
GRADIENT

CASC  
-0.0083  
-0.0063  
-0.0155  
-0.0169  
-0.0179  
-0.0013

CNSC  
-0.0019  
-0.0014  
-0.0035  
-0.0038  
-0.0040  
-0.0003

CLMSC  
0.0013  
0.0010  
0.0025  
0.0027  
0.0029  
0.0002

CABF  
0.0770  
0.0784  
0.0784  
0.0852  
0.0828  
0.0008

CNBF  
0.1358  
0.1393  
0.1392  
0.1513  
0.1470  
0.0015

CLMBF  
-0.1455  
-0.1481  
-0.1480  
-0.1608  
-0.1563  
-0.0016

RUDDER = .000 SPOBRK = 55.000  
BOFLAP = 22.500 ELVN-L = 10.000  
ELVN-R = 10.000 MACH = .600

PARAMETRIC DATA

0A148 -140 A/B/C/R CAVITY. FOREBODY INCREMENTS 1

( FEB045 ) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CASC  
-0.0068  
-0.0066  
-0.0071  
-0.0000

CNSC  
-0.0015  
-0.0015  
-0.0016  
-0.0000

CLMSC  
0.0011  
0.0010  
0.0011  
0.0000

CABF  
0.0925  
0.0932  
0.0926  
0.0000

CNBF  
0.1642  
0.1655  
0.1644  
0.0000

RUDDER = .000 SPOBRK = 55.000  
BOFLAP = 22.500 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = .900

PARAMETRIC DATA

RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CASC  
-0.0076  
-0.0076  
-0.0066  
0.0001

CNSC  
-0.0017  
-0.0017  
-0.0015  
0.0000

CLMSC  
0.0012  
0.0012  
0.0011  
-0.0000

CABF  
0.0903  
0.0895  
0.0924  
0.0003

CNBF  
0.1604  
0.1590  
0.1642  
0.0005

CLMBF  
-0.1706  
-0.1690  
-0.1746  
-0.0005

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEED-5) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.6000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .900

RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CMSC

-.00019

-.00016

-.00016

.00000

CASC

-.00086

-.00074

-.00070

.00002

CLMSC

.00014

.00012

.00011

-.00000

CABF

.00897

.00866

.00891

.00001

CNBF

.01575

.01539

.01563

.00001

CLMSF

-.01574

-.01535

-.01563

-.00001

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CMSC

-.00020

-.00016

-.00019

.00000

CASC

-.00090

-.00073

-.00084

.00001

CLMSC

.00014

.00012

.00013

-.00000

CABF

.00897

.00876

.00904

.00001

CNBF

.01593

.01555

.01565

.00002

CLMSF

-.01584

-.01554

-.01565

-.00002

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CMSC

-.00024

-.00021

-.00021

.00000

CASC

-.00106

-.00093

-.00094

.00001

CLMSC

.00017

.00015

.00015

-.00000

CABF

.00932

.00915

.00962

.00002

CNBF

.01656

.01625

.01630

.00004

CLMSF

-.01761

-.01729

-.01751

-.00005

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

(FEB045) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPDPRK = 55.000  
 BOFLAP = 22.500 ELYN-L = 4.000  
 ELYN-R = 4.000 MACH = .500

## PARAMETRIC DATA

R/V/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00012	-.00052	.00008	.00763	.01355	-.01440
-4.000	-.00011	-.00050	.00008	.00739	.01311	-.01394
.000	-.00021	-.00092	.00015	.00748	.01329	-.01414
4.000	-.00029	-.00131	.00021	.00753	.01337	-.01422
8.000	-.00019	-.00084	.00013	.00760	.01351	-.01435
GRADIENT	-.00002	-.00010	.00002	.00002	.00003	-.00003

R/V/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00014	-.00063	.00010	.00774	.01375	-.01462
-4.000	-.00009	-.00040	.00006	.00750	.01332	-.01417
.000	-.00020	-.00089	.00014	.00744	.01322	-.01425
4.000	-.00024	-.00109	.00017	.00757	.01344	-.01429
8.000	-.00022	-.00099	.00015	.00784	.01393	-.01481
GRADIENT	-.00002	-.00009	.00001	.00001	.00001	-.00002

R/V/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00010	-.00043	.00007	.00782	.01390	-.01478
-4.000	-.00007	-.00030	.00005	.00756	.01342	-.01427
.000	-.00019	-.00084	.00013	.00722	.01282	-.01353
4.000	-.00024	-.00107	.00017	.00770	.01367	-.01454
8.000	-.00020	-.00088	.00014	.00800	.01421	-.01511
GRADIENT	-.00002	-.00010	.00002	.00002	.00003	-.00003

R/V/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-8.000	-.00018	-.00079	.00013	.00799	.01402	-.01490
-4.000	-.00010	-.00045	.00007	.00761	.01351	-.01437
.000	-.00015	-.00073	.00012	.00728	.01293	-.01375
4.000	-.00022	-.00099	.00016	.00773	.01374	-.01450
8.000	-.00031	-.00139	.00022	.00785	.01335	-.01493
GRADIENT	-.00001	-.00007	.00001	.00002	.00003	-.00003

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEBD46) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

-8.000

-4.000

.000

4.000

8.000

GRADIENT

-8.000

-4.000

.000

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GRADIENT

-8.000

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GRADIENT

-8.000

-4.000

.000

4.000

8.000

GRADIENT

-8.000

-4.000

.000

4.000

8.000

GRADIENT

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

CNBF

.01346

.01333

.01320

.01307

.01294

.01281

.01268

.01255

.01242

.01229

.01216

.01203

.01190

.01177

.01164

.01151

.01138

.01125

.01112

.01099

.01086

.01073

.01060

.01047

.01034

.01021

.01008

.00995

.00982

.00969

.00956

.00943

.00930

.00917

.00904

.00891

.00878

.00865

.00852

.00839

.00826

.00813

.00800

.00787

.00774

.00761

.00748

.00735

.00722

.00709

.00696

.00683

.00670

.00657

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.400

CNBF

.01578

.01544

.01576

.01544

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(FEB047) ( 23 AUG 75 )

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

OA148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

DATE 08 MAY 76

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
BDFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.01691  
.01687  
.01718  
.00003

CLMBF  
-.01755  
-.01752  
-.01784  
-.00004

CASC  
-.00032  
-.00068  
-.00064  
.00002

CLMSC  
.00013  
.00011  
.00010  
-.00000

CABF  
.00724  
.00722  
.00736  
.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.01756  
.01715  
.01723  
-.00004

CLMBF  
-.01824  
-.01781  
-.01769  
.00004

CASC  
-.00072  
-.00059  
-.00070  
.00000

CLMSC  
.00012  
.00009  
.00011  
-.00000

CABF  
.00752  
.00734  
.00738  
-.00002

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.01771  
.01782  
.01772  
.00000

CLMBF  
-.01839  
-.01850  
-.01840  
-.00000

CASC  
-.00076  
-.00059  
-.00077  
-.00000

CLMSC  
.00012  
.00009  
.00012  
.00000

CABF  
.00758  
.00763  
.00759  
.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.01839  
.01874  
.01840  
.00000

CLMBF  
-.01909  
-.01846  
-.01910  
-.00000

CASC  
-.00076  
-.00132  
-.00108  
-.00004

CLMSC  
.00012  
.00021  
.00017  
.00001

CABF  
.00787  
.00803  
.00788  
.00000

(FEB048) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

REFERENCE DATA

SREF = 2693.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 65.000  
BDPLAP = 16.300 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
CNSC  
-.00017  
-.00016  
-.00013  
.00001  
CASC  
-.00078  
-.00072  
-.00056  
.00003  
CLMSC  
.00012  
.00011  
.00009  
-.00000  
CNBF  
.01743  
.01750  
.01841  
.00012  
CLMBF  
-.01810  
-.01817  
-.01312  
-.00013

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
CNSC  
-.00019  
-.00018  
-.00019  
-.00000  
CASC  
-.00086  
-.00081  
-.00087  
-.00000  
CLMSC  
.00014  
.00013  
.00014  
.00000  
CNBF  
.01826  
.01826  
.01853  
.00003  
CLMBF  
-.01896  
-.01896  
-.01924  
-.00003

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
CNSC  
-.00015  
-.00020  
-.00018  
-.00000  
CASC  
-.00067  
-.00089  
-.00080  
-.00002  
CLMSC  
.00011  
.00014  
.00013  
.00000  
CNBF  
.01905  
.01898  
.01922  
.00002  
CLMBF  
-.01978  
-.01971  
-.01996  
-.00002

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
CNSC  
-.00015  
-.00015  
-.00019  
-.00000  
CASC  
-.00067  
-.00068  
-.00083  
-.00002  
CLMSC  
.00011  
.00011  
.00013  
.00000  
CNBF  
.02009  
.01972  
.01979  
-.00004  
CLMBF  
-.02085  
-.02047  
-.02054  
.00004

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT  
CNSC  
-.00022  
-.00025  
-.00018  
.00001  
CASC  
-.00100  
-.00110  
-.00082  
.00002  
CLMSC  
.00016  
.00018  
.00013  
-.00000  
CNBF  
.02080  
.02068  
.02045  
-.00004  
CLMBF  
-.02160  
-.02148  
-.02124  
.00004

(FEBD49) ( 23 AUG 75 )

DATE 08 MAY 76  
 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
 0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = 1.100

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00001  
 CASC  
 -.00114  
 -.00083  
 -.00072  
 .00005  
 CLMSC  
 .00018  
 .00013  
 .00011  
 -.00001  
 CABF  
 .00867  
 .02120  
 .02196  
 .00022  
 CNBF  
 .02024  
 .02120  
 .02196  
 .00022  
 CLMBF  
 -.02101  
 -.02202  
 -.02280  
 -.00022

RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT -.00001  
 CASC  
 -.00076  
 -.00109  
 -.00109  
 -.00004  
 CLMSC  
 .00012  
 .00017  
 .00017  
 .00001  
 CABF  
 .00868  
 .00873  
 .00904  
 .00005  
 CNBF  
 .02027  
 .02038  
 .02112  
 .00011  
 CLMBF  
 -.02105  
 -.02116  
 -.02193  
 -.00011

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT -.00001  
 CASC  
 -.00080  
 -.00096  
 -.00112  
 -.00004  
 CLMSC  
 .00013  
 .00015  
 .00018  
 .00001  
 CABF  
 .00898  
 .00895  
 .00911  
 .00002  
 CNBF  
 .02098  
 .02091  
 .02127  
 .00004  
 CLMBF  
 -.02178  
 -.02171  
 -.02208  
 -.00004

RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT -.00001  
 CASC  
 -.00073  
 -.00102  
 -.00113  
 -.00005  
 CLMSC  
 .00016  
 .00016  
 .00018  
 .00001  
 CABF  
 .00942  
 .00941  
 .00951  
 .00001  
 CNBF  
 .02201  
 .02198  
 .02220  
 .00002  
 CLMBF  
 -.02285  
 -.02283  
 -.02305  
 -.00003

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT -.00001  
 CASC  
 -.00119  
 -.00136  
 -.00107  
 .00002  
 CLMSC  
 .00019  
 .00022  
 .00017  
 -.00000  
 CABF  
 .01020  
 .00989  
 .00988  
 -.00004  
 CNBF  
 .02383  
 .02311  
 .02308  
 -.00009  
 CLMBF  
 -.02475  
 -.02399  
 -.02397  
 .00010

DATE 08 MAY 76

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY. FOREBODY INCREMENTS 1

(FE8D50) ( 23 AUG 75 )

# REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
BDFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC .00007 CLMSC -.00005 CABF .00725 CLMBF  
-.00005 -.00004 .00739 .01694  
-.00023 -.00103 .00755 .01726  
-.00004 -.00017 .00004 .01763  
GRADIENT

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC .00001 CLMSC -.00001 CABF .00711 CLMBF  
-.00010 -.00045 .00726 .01661  
-.00024 -.00107 .00753 .01696  
-.00003 -.00014 .00005 .01760  
GRADIENT

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC -.00002 CLMSC .00001 CABF .00691 CLMBF  
-.00007 -.00031 .00693 .01613  
-.00029 -.00128 .00740 .01619  
-.00003 -.00015 .00006 .01729  
GRADIENT

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC -.00002 CLMSC .00002 CABF .00692 CLMBF  
-.00017 -.00077 .00723 .01616  
-.00025 -.00114 .00004 .01617  
-.00003 -.00013 .00002 .01689  
GRADIENT

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC -.00001 CLMSC .00001 CABF .00704 CLMBF  
-.00019 -.00084 .00713 .01644  
-.00021 -.00095 .00735 .01666  
-.00003 -.00011 .00002 .01716  
GRADIENT



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

( FEB051 ) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

PN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	.00006	.00028	-.00004	.00633	.01477	-.01534
-4.000	.00009	.00040	-.00006	.00617	.01440	-.01495
.000	-.00013	-.00061	.00010	.00648	.01513	-.01571
4.000	-.00032	-.00142	.00023	.00641	.01496	-.01553
8.000	-.00021	-.00095	.00015	.00641	.01496	-.01553
GRADIENT	-.00005	-.00023	.00004	.00003	.00007	-.00007

PN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	.00000	.00001	-.00000	.00619	.01446	-.01502
-4.000	.00009	.00039	-.00006	.00626	.01463	-.01519
.000	-.00014	-.00061	.00010	.00626	.01461	-.01517
4.000	-.00030	-.00135	.00021	.00643	.01501	-.01558
8.000	-.00026	-.00117	.00019	.00637	.01488	-.01545
GRADIENT	-.00005	-.00022	.00003	.00002	.00005	-.00005

PN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	.00001	-.00004	.00001	.00636	.01485	-.01542
-4.000	.00002	.00010	-.00002	.00625	.01459	-.01515
.000	-.00017	-.00078	.00012	.00604	.01411	-.01465
4.000	-.00034	-.00151	.00024	.00647	.01511	-.01569
8.000	-.00032	-.00145	.00023	.00646	.01509	-.01567
GRADIENT	-.00005	-.00020	.00003	.00003	.00006	-.00007

PN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00014	-.00064	.00010	.00633	.01478	-.01534
-4.000	-.00005	-.00023	.00004	.00628	.01466	-.01522
.000	-.00015	-.00070	.00011	.00595	.01389	-.01442
4.000	-.00027	-.00123	.00020	.00515	.01435	-.01490
8.000	-.00021	-.00095	.00015	.00540	.01495	-.01552
GRADIENT	-.00003	-.00012	.00002	-.00002	-.00004	-.00004

STANDARDIZED FORCE DATA - 0A148 ( AMES 11-073-1 )

DA148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

## REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1075.6800	IN. X0
LEEF	=	474.8000	IN.	YMRP	=	.0000	IN. Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
SCAF	=	.0300					

BN/1 = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-8.000  
-4.000  
.000  
4.000  
8.000  
GRADIENT

CLMSC	CABF	CNBF	CLMBF
.00011	.00610	.01424	-.01479
.00010	.00609	.01423	-.01478
.00012	.00592	.01382	-.01435
.00023	.00617	.01442	-.01497
.00020	.00613	.01432	-.01487
.00002	.00001	.00002	-.00002

RUDDER =	-10.000	SPDBRK =	85.000
BOFLAP =	16.300	ELVN-L =	4.000
ELVN-R =	4.000	MACH =	.600

## PARAMETRIC DATA

CA148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

## REFERENCE DATA

SPRF	=	2690.0000	SO.FT.	XMRP	=	1076.6800	IN. Y0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN. Y0
BRF	=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
SCALE	=	.0300					

BN/1 = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

	CLMSC	CABF	CNBF	CLMBF
1	.00013	.00710	.01658	-.01722
2	.00018	.00718	.01676	-.01740
3	.00010	.00712	.01662	-.01726
4	.00000	.00000	.00001	-.00001

RUDDER =	-10.000	SPOBRX =	55.000
BOFLAP =	16.300	ELVN-L =	-4.000
ELVN-R =	4.000	MACH =	1.400

### PARAMETRIC DATA

ALPHA = .000  
 ZETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

$N/I = 2.92$  GRADIENT INTERVAL = -5.00/ 5.00

	CABF	CNBF	CLMBF
CLMSC	.00712	.01663	-.01727
.00015	.00720	.01682	-.01746
.00014	.00723	.01689	-.01754
.00006	.00701	.00303	-.00003
.00001			

CNBF  
.01663  
.01682  
.01699  
.00003

CLMBF  
--.01727  
--.01746  
--.01754  
--.00003

(FE8052) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00001  
 CNSC -.00005  
 CASC -.00023  
 CLMSC .00004  
 CABF .00708  
 CNBF .01654  
 CLMBF -.01718  
 -.01696  
 -.01736  
 -.00002

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00001  
 CNSC -.00001  
 CASC -.00004  
 CLMSC .00001  
 CABF .00729  
 CNBF .01703  
 CLMBF -.01768  
 -.01743  
 -.01758  
 .00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00001  
 CNSC -.00006  
 CASC -.00028  
 CLMSC .00004  
 CABF .00735  
 CNBF .01717  
 CLMBF -.01783  
 -.01773  
 -.01836  
 -.00007

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT .00001  
 CNSC -.00014  
 CASC -.00061  
 CLMSC .00010  
 CABF .00767  
 CNBF .01790  
 CLMBF -.01859  
 -.01920  
 -.01907  
 -.00006

STABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY. FOREBODY INCREMENTS 1

(FE8053) ( 23 AUG 75 )

## REFERENCE DATA

SREF =	2690.0000	SO.FT.	XMAP =	1076.6800	IN. X0
LEEF =	474.8000	IN.	YMAP =	.0000	IN. Y0
BPREF =	935.6800	IN.	ZMAP =	375.0000	IN. Z0
SCALE =	.0300				

RUDDER =	-10.000	SPOBRK =	55.000
BOFLAP =	16.300	ELVN-L =	-4.000
ELVN-R =	4.000	MACH =	1.250

### PARAMETRIC DATA

**RN/I = 3.01 GRADIENT INTERVAL = -5.00/ 5.00**

ALPHA =	-4.000	BETA	-4.000	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
	-4.000	-4.000	-4.000	-0.0025	-0.0114	.00018	.00955	.02020	-.02097
				-0.0025	-0.0118	.00019	.00873	.02038	-.02116
				-0.0019	-0.0086	.00014	.00876	.02046	-.02124
				.00001	.00003	-.00001	.00001	.00003	-.00003
				.00001	.00001				

$E(1) =$	$3.01$	$\text{GRADIENT INTERVAL} =$	$-5.00/$	$5.00$
----------	--------	------------------------------	----------	--------

ALPHA	=	.000	CNSC	CASC	CLMSC	CASF	CASF	CLMBF
		EST-A	-.00021	-.00035	.00015	.00005	.00020	-.00097
		-4.000	-.00021	-.00034	.00015	.00009	.00023	-.00106
		.000	-.00021	-.00039	.00009	.00009	.00056	-.00134
		4.000	-.00013	-.00059	.00009	.00000	.00004	-.00005
		GRACIENT	.00001	.00005	-.00001	.00002		

6.91 = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CASC	CLMSC	CABF	CRBF	CLMBF
4.000						
	4.000	- .00005	.00003	.00768	.01841	-.01911
	-4.000			.00788	.01840	-.01910
	.000	.00002	.00002	.00798	.01864	-.01935
	4.000	.00007	.00030	.00798	.01864	-.01935
	-4.000			.00001	.00003	-.00003
	GRADIENT	.00005	.00001	.00001	.00003	-.00003

BNV1 =	3.01	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA =	8.000	CNCF	CASC	CLMSC	CABF	CNBF	CLMBF
BETA	-4.000	-0.0004	-0.0016	0.0003	0.0011	0.1895	-0.1968
	0.000	0.0003	0.0014	0.0002	0.0013	0.1899	-0.1971
	4.000	0.0005	0.0022	-0.0003	0.0023	0.1923	-0.1997
GRADIENT	0.0001	0.0001	0.0005	0.0001	0.0001	0.0003	-0.0004

RNVI =	3.02	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
12.000							
	-4.000	-.00011	-.00050	.00008	.00841	.01964	-.02039
	.000	.00000	.00001	-.00000	.00848	.01979	-.02055
	4.000	.00003	.00011	-.00002	.00861	.02010	-.02087
GRADIENT		.00002	.00008	-.00001	.00002	.00006	-.00006

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(FE8054) ( 23 AUG 75 )

0A148 -140 A/B/C/R CAVITY. FOREBODY INCREMENTS 1

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
BDFLAP = 16.300 ELVN-L = -4.000  
ELVN-R = 4.000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.02008  
02026  
.02059  
.00006

CLMBF  
-.02084  
-.02104  
-.02138  
-.00007

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.01569  
.01959  
.02008  
.00005

CLMBF  
-.02045  
-.02034  
-.02085  
-.00005

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.02007  
.02006  
.02083  
.00010

CLMBF  
-.02094  
-.02083  
-.02163  
-.00010

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.02126  
.02127  
.02176  
.00006

CLMBF  
-.02208  
-.02208  
-.02250  
-.00007

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF  
.02222  
.02161  
.02277  
.00007

CLMBF  
-.02307  
-.02243  
-.02364  
-.00007

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEED55) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. YO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.5800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SFCBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .900

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00004	-.00020	.00003	.00670	.01566	-.01626
.000	-.00011	-.00047	.00008	.00675	.01576	-.01636
4.000	-.00009	-.00035	.00006	.00655	.01554	-.01613
GRADIENT	-.00000	-.00002	.00000	-.00001	-.00001	.00002

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00004	-.00020	.00003	.00650	.01519	-.01577
.000	-.00017	-.00075	.00012	.00641	.01436	-.01553
4.000	-.00011	-.00049	.00008	.00651	.01421	-.01580
GRADIENT	-.00001	-.00004	.00001	.00000	.00000	-.00000

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00008	-.00037	.00006	.00650	.01517	-.01576
.000	-.00012	-.00055	.00009	.00625	.01460	-.01516
4.000	-.00009	-.00040	.00006	.00619	.01468	-.01524
GRADIENT	-.00000	-.00000	.00000	-.00003	-.00006	.00006

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00003	-.00012	.00002	.00632	.01475	-.01532
.000	-.00002	-.00007	.00001	.00603	.01403	-.01453
4.000	.00009	.00040	-.00006	.00612	.01430	-.01455
GRADIENT	.00001	.00007	-.00001	-.00002	-.00006	.00006

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00002	-.00011	.00002	.00658	.01537	-.01595
.000	.00003	.00012	-.00002	.00629	.01469	-.01526
4.000	.00012	.00055	-.00009	.00634	.01480	-.01535
GRADIENT	.00002	.00008	-.00001	-.00003	-.00007	.00007

DATE 03 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

( FEB856 ) ( 23 AUG 75 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

REFERENCE DATA

SREF = 2630 0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .600

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00012	-.00055	.00009	.00562	.01311	-.01362
-4.000	-.00012	-.00054	.00009	.00559	.01306	-.01356
.000	-.00016	-.00070	.00011	.00566	.01322	-.01372
4.000	-.00017	-.00078	.00012	.00564	.01317	-.01367
8.000	-.00035	-.00023	.00004	.00570	.01332	-.01383
GRADIENT	-.00001	-.00003	.00000	.00001	.00001	-.00001

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00013	-.00060	.00010	.00569	.01328	-.01379
-4.000	-.00014	-.00062	.00010	.00561	.01309	-.01360
.000	-.00018	-.00080	.00013	.00568	.01327	-.01378
4.000	-.00012	-.00054	.00009	.00569	.01330	-.01381
8.000	-.00003	-.00011	.00002	.00577	.01348	-.01400
GRADIENT	.00000	.00001	-.00000	.00001	.00003	-.00003

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00017	-.00078	.00012	.00584	.01364	-.01416
-4.000	-.00018	-.00081	.00013	.00576	.01346	-.01397
.000	-.00014	-.00061	.00010	.00543	.01267	-.01315
4.000	-.00005	-.00028	.00004	.00563	.01315	-.01365
8.000	.00005	.00023	-.00004	.00570	.01331	-.01382
GRADIENT	.00001	.00007	-.00001	-.00002	-.00004	.00004

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00025	-.00114	.00018	.00603	.01408	-.01461
-4.000	-.00018	-.00080	.00013	.00580	.01355	-.01407
.000	-.00015	-.00065	.00010	.00546	.01276	-.01325
4.000	-.00011	-.00052	.00008	.00545	.01272	-.01321
8.000	.00003	.00016	-.00002	.00578	.01349	-.01401
GRADIENT	.00001	.00004	-.00001	-.00004	-.00010	.00011

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEB056) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
LREF = 474.6000 IN. YMRP = 0.0000 IN. YO  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 55.000  
SDFLAP = 16.300 ELVN-L = -4.000  
ELVN-R = 4.000 MACH = .600

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CMBF	CLMSF
-8.000	-0.0023	-0.0018	.00019	.00593	.01399	-0.0152
-4.000	-0.0017	-0.0078	.00012	.00583	.01381	-0.0143
.000	-0.0002	-0.0007	.00001	.00540	.01252	-0.01310
4.000	-0.0006	-0.0026	.00004	.00522	.01289	-0.01339
8.000	.00006	.00028	-0.0004	.00567	.01325	-0.01375
GRADIENT	.00001	.00007	-0.0001	-0.0004	-0.0003	.00003

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEB057) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
LREF = 474.6000 IN. YMRP = 0.0000 IN. YO  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
SDFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = -4.000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CMBF	CLMSF
-4.000	-0.0016	-0.0074	.00012	.00697	.01606	-0.01667
.000	-0.0007	-0.0034	.00005	.00689	.01509	-0.01671
4.000	-0.0005	-0.0021	.00003	.00697	.01629	-0.01631
GRADIENT	.00001	.00007	-0.0001	.00001	.00003	-0.00003

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CMBF	CLMSF
-4.000	-0.00011	-0.00047	.00008	.00710	.01659	-0.01721
.000	-0.0009	-0.0034	.00007	.00707	.01551	-0.01715
4.000	-0.0011	-0.0049	.00009	.00718	.01676	-0.01740
GRADIENT	-0.00000	-0.00000	.00000	.00001	.00002	-0.00002



DATE 08 MAY 76  
TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

REFERENCE DATA  
SREF = 2590.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 935.6000 IN.  
SCALE = .0300

RUDDER = 10.000  
BDFLAP = 16.300  
ELVN-R = -4.000  
SPDRK = 55.000  
ELVN-L = 4.000  
MACH = 1.400

RM/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
BETA -4.000	-.00015	-.00066	.00011	.00731	.01707	-.0.772
.000	-.00017	-.00077	.00012	.00730	.01704	-.01769
4.000	-.00016	-.00073	.00012	.00726	.01695	-.01760
GRADIENT -.00000	-.00001	-.00001	.00000	-.00001	-.00001	.00002

RM/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
BETA -4.000	-.00021	-.00097	.00015	.00762	.01781	-.01849
.000	-.00022	-.00097	.00015	.00753	.01759	-.01825
4.000	-.00019	-.00084	.00013	.00774	.01808	-.01877
GRADIENT -.00000	.00000	.00002	-.00000	.00001	.00003	-.00004

RM/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
BETA -4.000	-.00017	-.00075	.00012	.00761	.01777	-.01845
.000	-.00025	-.00112	.00018	.00781	.01824	-.01894
4.000	-.00017	-.00075	.00012	.00789	.01843	-.01913
GRADIENT -.00000	-.00000	-.00000	.00000	.00004	.00003	-.00008

RM/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
BETA -4.000	-.00020	-.00091	.00014	.00767	.01790	-.01859
.000	-.00025	-.00112	.00018	.00802	.01873	-.01944
4.000	-.00023	-.00104	.00017	.00801	.01872	-.01943
GRADIENT -.00000	-.00000	-.00002	.00000	.00004	.00003	-.00001

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

REFRESH: 23 AUG 75

## REFERENCE DATA

SREF = 2632.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETER DATA

BUDDGE = 10.000 SPEEDX = 55.000  
 BDFLAP = 18.000 SLOPE = 4.000  
 ELVAR = -4.000 SAG = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 .000  
 4.000  
 GRADIENT

CLMSE  
 .01555  
 .01527  
 .01555  
 .01555  
 .01555

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 .000  
 4.000  
 GRADIENT

CLMSE  
 .01555  
 .01527  
 .01555  
 .01555  
 .01555

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 .000  
 4.000  
 GRADIENT

CLMSE  
 .01555  
 .01527  
 .01555  
 .01555  
 .01555

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 .000  
 4.000  
 GRADIENT

CLMSE  
 .01555  
 .01527  
 .01555  
 .01555  
 .01555

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 .000  
 4.000  
 GRADIENT

CLMSE  
 .01555  
 .01527  
 .01555  
 .01555  
 .01555

DATE 08 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

( FEB059 ) ( 23 AUG 75 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

REFERENCE DATA

SREF = 2630.000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
SREF = 936.6200 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER = 10.000 SPDBRK = 55.000  
BOFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = -4.000 MACH = 1.100

PARAMETRIC DATA

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00024	-.00106	.00017	.00881	.02057	-.02135
-.00018	-.00081	.00013	.00852	.01990	-.02066
-.00012	-.00053	.00008	.00871	.02034	-.02112
.00001	.00007	-.00001	-.00001	-.00003	.00003

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00021	-.00096	.00015	.00901	.02105	-.02185
-.00027	-.00120	.00019	.00861	.02011	-.02069
-.00020	-.00091	.00014	.00865	.02021	-.02039
.00000	.00001	-.00003	-.00004	-.00010	.00011

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00019	-.00083	.00013	.00908	.02121	-.02202
-.00028	-.00127	.00020	.00924	.02158	-.02240
-.00031	-.00138	.00022	.00911	.02127	-.02209
-.00002	-.00007	.00001	.00000	.00001	-.00001

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00019	-.00087	.00014	.00961	.02244	-.02330
-.00023	-.00102	.00016	.00934	.02181	-.02264
-.00025	-.00113	.00018	.00973	.02272	-.02359
-.00001	-.00003	.00001	.00001	.00003	-.00004

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00022	-.00097	.00015	.01027	.02398	-.02489
-.00024	-.00108	.00017	.00956	.02332	-.02317
-.00029	-.00127	.00020	.00979	.02385	-.02374
-.00001	-.00004	.00001	-.00006	-.00014	.00014

DATE 13 MAY 76

TABULATED FORCE DATA - 0A148 ( ANES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

REF 58801 123 100 75

REFERENCE DATA

REF = 28800000 50.00  
 REF = 4418000 10.00  
 REF = 3380000 10.00  
 SCALE = 10000

REF = 1076.6800 IN. X0  
 REF = 1000 IN. Y0  
 REF = 375.0000 IN. Z0

PARAMETRIC DATA

REF = 10.000  
 REF = 16.000  
 REF = 14.000

RM/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA = 4.000  
 GAMMA = 4.000  
 DELTA = 4.000  
 GRADIENT = 4.000

CNSC  
 CASC  
 CLMSC  
 CABF  
 CMBF

RM/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA = 4.000  
 GAMMA = 4.000  
 DELTA = 4.000  
 GRADIENT = 4.000

CNSC  
 CASC  
 CLMSC  
 CABF  
 CMBF

RM/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA = 4.000  
 GAMMA = 4.000  
 DELTA = 4.000  
 GRADIENT = 4.000

CNSC  
 CASC  
 CLMSC  
 CABF  
 CMBF

RM/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA = 4.000  
 GAMMA = 4.000  
 DELTA = 4.000  
 GRADIENT = 4.000

CNSC  
 CASC  
 CLMSC  
 CABF  
 CMBF

RM/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA = 4.000  
 GAMMA = 4.000  
 DELTA = 4.000  
 GRADIENT = 4.000

CNSC  
 CASC  
 CLMSC  
 CABF  
 CMBF

(FEBDS1) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1.76.6800 IN. XO  
 LREF = 474.8000 IN. YHRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZHRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA  
 RUDDER = 10.000 SPOBRK = 55.000  
 EDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = .600

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT  
 -4.000  
 .00016  
 -.00015  
 -.00011  
 -.00007  
 -.00005  
 -.00003  
 -.00001  
 CASC  
 -.00071  
 -.00057  
 -.00049  
 -.00075  
 -.00063  
 -.00001  
 CLMSC  
 .00011  
 .00011  
 .00008  
 .00012  
 .00010  
 .00000  
 CABF  
 .00576  
 .00581  
 .00574  
 .00559  
 .00564  
 -.00003  
 CNBF  
 .01345  
 .01357  
 .01340  
 .01305  
 .01318  
 -.00007  
 CLMBF  
 -.01396  
 -.01409  
 -.01391  
 -.01355  
 -.01368  
 .00007

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT  
 .000  
 -.00017  
 -.00021  
 -.00015  
 -.00022  
 -.00015  
 -.00000  
 CASC  
 -.00076  
 -.00093  
 -.00066  
 -.00100  
 -.00067  
 -.00001  
 CLMSC  
 .00012  
 .00015  
 .00010  
 .00016  
 .00011  
 .00000  
 CABF  
 .00583  
 .00570  
 .00562  
 .00566  
 .00576  
 -.00001  
 CNBF  
 .01363  
 .01331  
 .01312  
 .01321  
 .01344  
 -.00001  
 CLMBF  
 -.01415  
 -.01382  
 -.01362  
 -.01372  
 -.01396  
 .00001

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT  
 4.000  
 -.00028  
 -.00016  
 -.00020  
 -.00019  
 -.00013  
 -.00000  
 CASC  
 -.00126  
 -.00070  
 -.00092  
 -.00085  
 -.00057  
 -.00002  
 CLMSC  
 .00020  
 .00011  
 .00015  
 .00013  
 .00009  
 .00000  
 CABF  
 .00589  
 .00580  
 .00568  
 .00572  
 .00589  
 -.00001  
 CNBF  
 .01375  
 .01354  
 .01326  
 .01336  
 .01375  
 -.00002  
 CLMBF  
 -.01427  
 -.01405  
 -.01377  
 -.01387  
 -.01427  
 .00002

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT  
 8.000  
 -.00028  
 -.00023  
 -.00013  
 -.00016  
 -.00010  
 -.00001  
 CASC  
 -.00124  
 -.00103  
 -.00059  
 -.00071  
 -.00043  
 .00004  
 CLMSC  
 .00020  
 .00016  
 .00009  
 .00011  
 .00007  
 -.00001  
 CABF  
 .00609  
 .00570  
 .00540  
 .00566  
 .00587  
 -.00001  
 CNBF  
 .01422  
 .01332  
 .01261  
 .01321  
 .01371  
 -.00001  
 CLMBF  
 -.01477  
 -.01393  
 -.01309  
 -.01371  
 -.01423  
 .00001

DATE 08 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 111-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE0061) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = 55.000  
BDFLAP = 16.300 ELVN-L = -.000  
ELVN-R = -4.000 MACH = .600

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00036	-.00160	.00025	.00585	.01366	-.01419
-4.000	-.00027	-.00123	.00020	.00564	.01316	-.01357
.000	-.00023	-.00105	.00017	.00548	.01279	-.01338
4.000	-.00020	-.00091	.00015	.00566	.01322	-.01372
8.000	-.00016	-.00070	.00011	.00580	.01355	-.01407
GRADIENT	.00001	.00004	-.00001	.00000	.00001	-.00001

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FE0062) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 5.000 SPCBRK = 55.000  
BDFLAP = 16.300 ELVN-L = -.000  
ELVN-R = -4.000 MACH = .600

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00016	-.00074	.00012	.00725	.01634	-.01759
.000	-.00018	-.00081	.00013	.00714	.01666	-.01730
4.000	-.00015	-.00067	.00011	.00722	.01685	-.01750
GRADIENT	.00000	.00001	-.00000	-.00000	-.00001	.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00016	-.00073	.00012	.00730	.01704	-.01769
.000	-.00017	-.00075	.00012	.00734	.01715	-.01780
4.000	-.00013	-.00068	.00010	.00741	.01730	-.01795
GRADIENT	.00000	.00002	-.00000	.00001	.00003	-.00003

## REFERENCE DATA

```

SPRF = 2690.0000 SO.FT.      XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN.          YMRP = .0000 IN. Y0
BREF = 936.6800 IN.          ZMRP = 375.0000 IN. Z0
SCALE = .0300

```

RUDDER =	5.000	SPOBRK =	55.000
BDFLAP =	16.300	ELVN-L =	-4.000
FLVN-R =	-4.000	MACH =	1.400

RN/L =	2.92	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	=	4.000 BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
		-4.000	-0.0019	-0.0084	.00013	.00724	.01691	-.01756
		.000	-0.0017	-0.0075	.00012	.00726	.01696	-.01761
		4.000	-0.0009	-0.0042	.00007	.00735	.01716	-.01782
GRADIENT			.00001	.00005	-.00001	.00001	.00003	-.00003

R:J/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

BN/1 = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
12.000							
	4.000	-0.0011	-0.0048	-0.0008	-0.0750	-0.1751	-0.1818
	-4.000	-0.0014	-0.0064	-0.0010	-0.0740	-0.1727	-0.1794
	4.000	-0.0023	-0.0105	-0.0017	-0.0779	-0.1819	-0.1889
	-4.000	-0.0022	-0.0087	-0.0021	-0.0034	-0.0008	-0.0009
	GRADIENT						

RNVI = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA =	16.000	BETA	CASC	CLMSC	CABF	CNBF	CLMBF
	-4.000	-0.0012	-0.0052	.00008	.00770	.01799	-.01868
	.000	-0.0021	-0.0097	.00015	.00804	.01878	-.01950
	4.000	-0.0020	-0.0090	.00014	.00806	.01891	-.01953
GRADIENT		-0.0001	-0.0005	.00001	.00034	.00010	-.00011

### PARAMETRIC DATA

RUDDER =	5.000	SPOBRK =	55.000
BDFLAP =	16.300	ELVN-L =	-4.000
FLVN-R =	-4.000	MACH =	1.400

DATE 08 MAY 76 TABULATED FORCE DATA - OAI48 ( AMES 11-073-1 )  
OAI48 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

( FEB063 ) ( 23 AUG 75 )

REFERENCE DATA  
SEEF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.6300 IN. YMRP = .0000 IN. YO  
BREF = 936.5800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 5.000 SPCBRK = 55.000  
BDFLAP = 16.300 ELVN-L = -4.000  
ELVN-R = -4.000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF .01849  
CLMBF -.01919  
-.01885  
-.01816  
-.01824  
-.00003  
-.00003

CASC -.00108  
CLMSC .00017  
CNBF .00792  
CLMBF .00777  
-.00793  
-.00781  
-.00050  
-.00001  
-.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF .01887  
CLMBF -.01959  
-.01929  
-.01945  
-.00002

CASC -.00113  
CLMSC .00018  
CNBF .00808  
CLMBF .00796  
-.00020  
-.00008  
-.00053  
-.00001  
-.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF .01873  
CLMBF -.01945  
-.01965  
-.01975  
-.00004

CASC -.00096  
CLMSC .00015  
CNBF .00802  
CLMBF .00811  
-.00085  
-.00815  
-.00039  
-.00002  
-.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF .01943  
CLMBF -.02017  
-.02027  
-.02070  
-.00007

CASC -.00109  
CLMSC .00017  
CNBF .00832  
CLMBF .00836  
-.00082  
-.00854  
-.00013  
-.00007  
-.00001

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNBF .01981  
CLMBF -.02057  
-.02045  
-.02111  
-.00007

CASC -.00092  
CLMSC .00015  
CNBF .00848  
CLMBF .00843  
-.00082  
-.00871  
-.00026  
-.00003  
-.00001





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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

( FEB65 ) ( 23 AUG 75 )

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

## REFERENCE DATA

SREF = 2592.0000 SQ.FT. XMRP = 1076.6600 IN. X0  
 LREF = 474.6000 IN. YMRP = .0000 IN. Y0  
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPDERK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00016	-.00072	.00011	.00664	.01551	-.01611
.000	-.00006	-.00029	.00005	.00664	.01550	-.01609
4.000	.00001	.00005	-.00001	.00651	.01519	-.01578
GRADIENT	.00002	.00010	-.00002	-.00002	-.00004	.00004

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00015	-.00068	.00011	.00666	.01556	-.01616
.000	-.00017	-.00078	.00012	.00645	.01507	-.01555
4.000	-.00007	-.00034	.00005	.00634	.01480	-.01536
GRADIENT	.00001	.00004	-.00001	-.00004	-.00010	.00010

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00024	-.00109	.00017	.00669	.01563	-.01623
.000	-.00015	-.00068	.00011	.00624	.01457	-.01513
4.000	-.00003	-.00013	.00002	.00615	.01435	-.01490
GRADIENT	.00003	.00012	-.00002	-.00007	-.00016	.00017

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00022	-.00100	.00016	.00639	.01492	-.01549
.000	-.00015	-.00067	.00011	.00615	.01437	-.01492
4.000	-.00006	-.00025	.00004	.00602	.01406	-.01460
GRADIENT	.00002	.00009	-.00001	-.00005	-.00011	.00011

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00019	-.00084	.00013	.00634	.01481	-.01538
.000	-.00011	-.00050	.00008	.00585	.01365	-.01418
4.000	-.00012	-.00052	.00008	.00600	.01401	-.01455
GRADIENT	.00001	.00004	-.00001	-.00004	-.00010	.00010

(FE8D66) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )  
0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

PARAMETRIC DATA

RUDDER = 5.000 SPOBRK = 55.000  
BDFLAP = 16.300 ELVN-L = -4.000  
ELVN-R = -4.000 MACH = .600

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-8.000  
-4.000  
-4.000  
-4.000  
4.000  
8.000  
GRADIENT

CNSC  
-.00023  
-.00018  
-.00017  
-.00012  
-.00012  
-.00003  
-.00001

CASC  
-.00103  
-.00093  
-.00074  
-.00053  
-.00016  
-.00004

CLMSC  
.00016  
.00013  
.00012  
.00008  
.00002  
-.00001

CABF  
.00589  
.00580  
.00574  
.00557  
.00558  
-.00003

CNBF  
.01376  
.01355  
.01341  
.01302  
.01304  
-.00007

CLMBF  
-.01429  
-.01406  
-.01392  
-.01352  
-.01353  
-.00007

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-8.000  
-4.000  
-4.000  
-4.000  
4.000  
8.000  
GRADIENT

CNSC  
-.00030  
-.00019  
-.00012  
-.00014  
-.00007  
-.00001

CASC  
-.00137  
-.00086  
-.00053  
-.00061  
-.00031  
-.00003

CLMSC  
.00022  
.00014  
.00009  
.00010  
-.00005  
-.00001

CABF  
.00506  
.00579  
.00570  
.00557  
.00578  
-.00001

CNBF  
.01415  
.01352  
.01331  
.01324  
.01349  
-.00003

CLMBF  
-.01469  
-.01404  
-.01382  
-.01375  
-.01401  
-.00004

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-8.000  
-4.000  
-4.000  
-4.000  
4.000  
8.000  
GRADIENT

CNSC  
-.00023  
-.00025  
-.00020  
-.00010  
-.00001  
-.00002

CASC  
-.00106  
-.00113  
-.00091  
-.00046  
-.00006  
-.00008

CLMSC  
.00017  
.00018  
.00014  
.00007  
-.00001  
-.00001

CABF  
.00626  
.00595  
.00560  
.00578  
.00578  
-.00002

CNBF  
.01462  
.01390  
.01307  
.01351  
.01350  
-.00005

CLMBF  
-.01518  
-.01443  
-.01357  
-.01403  
-.01401  
-.00005

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-8.000  
-4.000  
-4.000  
-4.000  
4.000  
6.000  
GRADIENT

CNSC  
-.00029  
-.00027  
-.00019  
-.00006  
-.00007  
-.00003

CASC  
-.00128  
-.00123  
-.00098  
-.00027  
-.00033  
-.00012

CLMSC  
.00020  
.00020  
.00014  
-.00004  
-.00005  
-.00002

CABF  
.00521  
.00586  
.00534  
.00558  
-.00075  
-.00004

CNBF  
.01450  
.01369  
.01247  
.01303  
.01342  
-.00008

CLMBF  
-.01506  
-.01422  
-.01295  
-.01353  
-.01393  
-.00009

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

DATE 08 MAY 76

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEB056) ( 23 AUG 75 )

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 5.000 SPOBRK = 55.000  
BCFLAP = 16.300 ELVN-L = -4.000  
ELVN-R = -4.000 MACH = .600

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-8.000  
-4.000  
0.000  
4.000  
8.000  
GRADIENT

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00033	-.00147	.00023	.00612	.01430	-.01485
-.00033	-.00147	.00023	.00565	.01321	-.01371
-.00023	-.00105	.00017	.00374	.01248	-.01296
-.00001	-.00004	.00001	.00545	.01274	-.01322
.00004	.00018	-.00003	.00551	.01311	-.01361
.00004	.00018	-.00003	-.00003	-.00006	.00006

0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS 1

(FEB067) ( 23 AUG 75 )

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
BCFLAP = 22.600 ELVN-L = -4.000  
ELVN-R = -4.000 MACH = .900

RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00018	-.00081	.00013	.00879	.01562	-.01661
-.00017	-.00076	.00012	.00877	.01558	-.01656
-.00016	-.00073	.00012	.00879	.01551	-.01660
.00000	.00001	-.00000	-.00000	-.00000	.00000

RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-4.000  
0.000  
4.000  
GRADIENT

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00020	-.00090	.00014	.00881	.01565	-.01664
-.00011	-.00047	.00008	.00855	.01519	-.01616
-.00012	-.00056	.00009	.00855	.01528	-.01635
.00001	.00004	-.00001	-.00002	-.00002	.00004

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS I

(FEBDET) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.6000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
BDFLAF = 22.500 ELVN-L = -4.000  
ELVN-R = -4.000 MACH = .900

RN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-.00022  
-.00017  
-.00011  
.00001

CASC  
-.00100  
-.00076  
-.00048  
.00007

CLMSC  
.00016  
.00012  
.00008  
-.00001

CABF  
.00877  
.00851  
.00842  
-.00004

CNSF  
.01557  
.01511  
.01496  
-.00008

CLMBF  
-.01656  
-.01605  
-.01591  
.00008

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-.00013  
-.00015  
-.00010  
.00000

CASC  
-.00059  
-.00067  
-.00045  
.00002

CLMSC  
.00009  
.00011  
.00007  
-.00000

CABF  
.00865  
.00843  
.00846  
-.00002

CNSF  
.01536  
.01498  
.01503  
-.00004

CLMBF  
-.01633  
-.01592  
-.01598  
.00004

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-.00021  
-.00019  
-.00019  
.00000

CASC  
-.00094  
-.00084  
-.00087  
.00001

CLMSC  
.00015  
.00013  
.00014  
-.00000

CABF  
.00877  
.00828  
.00840  
-.00005

CNSF  
.01558  
.01471  
.01492  
-.00008

CLMBF  
-.01657  
-.01564  
-.01587  
.00009

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

( FEB 68 ) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2530.0000 IN. YMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 536.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDERK = 55.000  
 BDFLAP = 22.500 ELYN-L = -4.000  
 ELYN-R = -4.000 MACH = .600

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMBF
-8.000	-.00023	-.00105	.00017	.00793	.01418	-.01509
-4.000	-.00020	-.00089	.00014	.00790	.01433	-.01491
.000	-.00014	-.00061	.00010	.00780	.01385	-.01473
4.000	-.00017	-.00075	.00012	.00788	.01399	-.01487
8.000	-.00026	-.00027	.00004	.00769	.01385	-.01452
GRADIENT	.00000	.00002	-.00000	-.00000	-.00000	.00000

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMBF
-8.000	-.00024	-.00109	.00017	.00813	.01443	-.01535
-4.000	-.00022	-.00097	.00016	.00795	.01394	-.01492
.000	-.00015	-.00067	.00011	.00774	.01375	-.01462
4.000	-.00017	-.00078	.00012	.00765	.01394	-.01482
8.000	-.00013	-.00060	.00009	.00791	.01404	-.01493
GRADIENT	.00001	.00002	-.00000	.00000	.00000	-.00000

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMBF
-8.000	-.00026	-.00118	.00019	.00823	.01462	-.01554
-4.000	-.00027	-.00122	.00019	.00809	.01439	-.01529
.000	-.00022	-.00100	.00016	.00774	.01375	-.01462
4.000	-.00013	-.00060	.00009	.00787	.01397	-.01486
8.000	-.00011	-.00047	.00008	.00792	.01406	-.01495
GRADIENT	.00002	.00009	-.00001	-.00003	-.00005	.00005

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMBF
-8.000	-.00027	-.00123	.00020	.00835	.01483	-.01577
-4.000	-.00026	-.00117	.00019	.00793	.01409	-.01538
.000	-.00021	-.00093	.00015	.00746	.01325	-.01459
4.000	-.00007	-.00032	.00005	.00773	.01372	-.01459
8.000	-.00006	-.00028	.00005	.00794	.01410	-.01489
GRADIENT	.00002	.00011	-.00002	-.00003	-.00005	.00005

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R CAVITY, FOREBODY INCREMENTS :

(FEED8) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.5000 IN. YMRP = .0000 IN. YO  
BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CNSC

-.00031

-.00029

-.00024

-.00009

-.00011

-.00003

CASC

-.00137

-.00129

-.00109

-.00037

-.00047

.00011

CLMSC

.00022

.00020

.00017

.00006

.00008

-.00002

CABF

.00824

.00775

.00755

.00760

.00774

-.00002

CNBF

.01463

.01377

.01342

.01350

.01375

-.00003

CLMBF

-.01559

-.01464

-.01427

-.01435

-.01462

-.00004

RUDDER = .000 SPDRK = 55.000  
BDPLAP = 22.500 ELVN-L = -4.000  
ELVN-R = -4.0 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.5000 IN. YMRP = .0000 IN. YO  
BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CNSC

-.00018

-.00009

-.00001

.00002

CASC

-.00080

-.00042

-.00006

.00009

CLMSC

.00013

.00007

.00001

-.00001

CABF

.00874

.00850

.00849

-.00003

CNBF

.01552

.01527

.01509

-.00005

CLMBF

-.01650

-.01624

-.01604

-.00006

RUDDER = .000 SPDRK = 55.000  
BDPLAP = 22.500 ELVN-L = -10.000  
ELVN-R = -10.000 MACH = .900

PARAMETRIC DATA

(FEED8) ( 23 AUG 75 )

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CNSC

-.00014

-.00010

-.00004

-.00001

CASC

-.00064

-.00046

-.00020

.00006

CLMSC

.00010

.00007

.00003

-.00001

CABF

.00891

.00847

.00849

-.00004

CNBF

.01565

.01504

.01507

-.00007

CLMBF

-.01664

-.01599

-.01603

-.00008

DATE 08 MAY '76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A143 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

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(FEBDEC9: 1 23 AUG 75 )

REFERENCE DATA

QREF = 2690.000 SQ.FT. XMRP = 1076.6900 IN. XO  
LREF = 474.500 IN. YMRP = .0000 IN. YO  
BREF = 935.6500 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPCBRK = 55.000  
BOFLAP = 22.500 ELVN-L = -10.000  
ELVN-2 = -10.000 MACH = .900

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-0.0019  
-0.0014  
-0.0011  
0.0001

CASC  
-0.0084  
-0.0065  
-0.0047  
0.0005

CLMSC  
0.0013  
0.0010  
0.0008  
-0.0001

CNBF  
0.0159  
0.0135  
0.0149  
-0.0008

CLMBF  
-0.0168  
-0.0163  
-0.0154  
0.0008

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-0.0018  
-0.0016  
-0.0015  
0.0000

CASC  
-0.0079  
-0.0071  
-0.0069  
0.0001

CLMSC  
0.0013  
0.0011  
0.0011  
-0.0000

CNBF  
0.0177  
0.0154  
0.0150  
-0.0009

CLMBF  
-0.0167  
-0.0159  
-0.0157  
0.0010

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-0.0017  
-0.0016  
-0.0019  
-0.0000

CASC  
-0.0074  
-0.0070  
-0.0087  
-0.0002

CLMSC  
0.0012  
0.0011  
0.0014  
0.0000

CNBF  
0.0156  
0.0152  
0.0150  
-0.0005

CLMBF  
-0.0160  
-0.0168  
-0.0167  
0.0005



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS I

(FE8D70) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00027	-.00122	.00019	.00819	.01455	-.01547
-4.000	-.00021	-.00095	.00015	.00815	.01448	-.01540
.000	-.00018	-.00079	.00013	.00806	.01432	-.01522
4.000	-.00019	-.00086	.00014	.00808	.01436	-.01527
8.000	-.00012	-.00052	.00008	.00801	.01422	-.01512
GRADIENT	.00000	.00001	-.00000	-.00001	-.00002	.00002

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00025	-.00112	.00018	.00842	.01496	-.01591
-4.000	-.00024	-.00108	.00017	.00802	.01424	-.01514
.000	-.00017	-.00076	.00012	.00792	.01407	-.01436
4.000	-.00017	-.00077	.00012	.00808	.01435	-.01525
8.000	-.00012	-.00055	.00009	.00820	.01457	-.01549
GRADIENT	.00001	.00004	-.00001	.00001	.00001	-.00001

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00028	-.00125	.00020	.00854	.01517	-.01613
-4.000	-.00021	-.00095	.00015	.00813	.01445	-.01536
.000	-.00023	-.00102	.00016	.00786	.01396	-.01485
4.000	-.00015	-.00069	.00011	.00804	.01428	-.01518
8.000	-.00014	-.00062	.00010	.00806	.01432	-.01523
GRADIENT	.00001	.00003	-.00001	-.00001	-.00002	.00002

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00028	-.00127	.00020	.00871	.01546	-.01644
-4.000	-.00022	-.00099	.00016	.00816	.01450	-.01542
.000	-.00022	-.00100	.00016	.00768	.01364	-.01450
4.000	-.00018	-.00080	.00013	.00799	.01419	-.01509
8.000	-.00018	-.00083	.00013	.00815	.01447	-.01538
GRADIENT	.00001	.00002	-.00000	-.00002	-.00004	.00004

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AXES 11-073-1 )

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0A149 -140 A/B/C CAVITY, FOREBODY INCREMENTS I

(FEED70) ( 23 AUG 75 )

## REFERENCE DATA

REF = 2890.0000 SQ.FT. XMRP = 1076.8900 IN. X0  
 REF = 474.8000 IN. YMRP = .0000 IN. Y0  
 REF = 938.8000 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0000

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

CNSC  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CASC  
 -.00133  
 -.00123  
 -.00094  
 -.00107  
 -.00048  
 .00002

CLMSC  
 .00021  
 .00020  
 .00015  
 .00017  
 .00009  
 -.00000

CASF  
 .00859  
 .00814  
 .00784  
 .00782  
 .00813  
 -.00004

CNBF  
 .01525  
 .01446  
 .01392  
 .01393  
 .01444  
 -.00007

CLMBF  
 -.01622  
 -.01537  
 -.01480  
 -.01477  
 -.01525  
 .00008

RUDDER = .000 SPEEDK = 55.000  
 BDFLAP = 22.500 ELN-L = -10.000  
 ELN-R = -10.000 MACH = .600

## PARAMETRIC DATA

## REFERENCE DATA

REF = 2890.0000 SQ.FT. XMRP = 1076.8900 IN. X0  
 REF = 474.8000 IN. YMRP = .0000 IN. Y0  
 REF = 938.8000 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

CNSC  
 -.00018  
 -.00015  
 -.00013  
 .00001  
 .00001  
 GRADIENT

CASC  
 -.00082  
 -.00065  
 -.00057  
 .00003  
 .00003  
 .00001

CLMSC  
 .00013  
 .00011  
 .00009  
 -.00001  
 -.00001  
 -.00001

CASF  
 .00744  
 .00723  
 .00710  
 .00004  
 -.00004  
 -.00004

CNBF  
 .01739  
 .01689  
 .01689  
 -.00010  
 -.00010  
 -.00010

CLMBF  
 -.01805  
 -.01754  
 -.01781  
 .00011  
 .00011  
 .00011

RUDDER = -5.000 SPEEDK = 55.000  
 BDFLAP = 18.300 ELN-L = -10.000  
 ELN-R = -10.000 MACH = 1.400

## PARAMETRIC DATA

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS I

(FEED71) ( 23 AUG 75 )

ALPHA = .000

BETA

CNSC  
 -.00020  
 -.00017  
 -.00013  
 .00001  
 .00001  
 GRADIENT

CASC  
 -.00091  
 -.00074  
 -.00059  
 .00004  
 .00004  
 .00001

CLMSC  
 .00014  
 .00012  
 .00009  
 -.00001  
 -.00001  
 -.00001

CASF  
 .00765  
 .00740  
 .00737  
 -.00002  
 -.00002  
 -.00002

CNBF  
 .01786  
 .01729  
 .01727  
 .01727  
 .01727  
 .01727

CLMBF  
 -.01854  
 -.01795  
 -.01811  
 .00005  
 .00005  
 .00005

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(FE8071) ( 23 AUG 75 )

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS I

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00017	-.00077	.00012	.00766	.01788	-.01857
-.00019	-.00087	.00014	.00748	.01746	-.01813
-.00011	-.00049	.00008	.00761	.01778	-.01846
.00001	.00003	-.00001	-.00001	-.00001	.00001
GRADIENT					

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00018	-.00079	.00013	.00777	.01816	-.01885
-.00019	-.00083	.00013	.00773	.01805	-.01874
-.00012	-.00053	.00008	.00773	.01805	-.01875
.00001	.00003	-.00001	-.00001	-.00001	.00001
GRADIENT					

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00011	-.00051	.00008	.00785	.01833	-.01903
-.00014	-.00064	.00010	.00760	.01776	-.01844
-.00019	-.00086	.00014	.00779	.01819	-.01889
.00001	-.00004	.00001	-.00001	-.00002	.00002
GRADIENT					

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
BETA

CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-.00018	-.00081	.00013	.00780	.01822	-.01892
-.00017	-.00077	.00012	.00803	.01876	-.01947
-.00021	-.00096	.00015	.00791	.01848	-.01918
.00000	-.00002	.00000	.00001	.00003	-.00003
GRADIENT					

PARAMETRIC DATA

RUDDER = -5.000 SPDRK = 55.000  
BDFLAP = 16.300 ELVN-L = -10.000  
ELVN-R = -10.000 MACH = 1.400

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

(FEED2) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 EREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

.00002

.00010

.00048

.00077

.00128

.00028

CNSC

CASC

CLMSC

CABF

CNBF

CLMBF

.02006

.01507

.01930

.00010

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

.00002

.00011

.00053

.00138

.00031

CNSC

CASC

CLMSC

CABF

CNBF

CLMBF

.02049

.01973

.01925

.01914

.00007

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

.00002

.00012

.00025

.00113

.00027

CNSC

CASC

CLMSC

CABF

CNBF

CLMBF

.02063

.01987

.01990

.01961

.00003

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

.00001

.00004

.00066

.00103

.00023

CNSC

CASC

CLMSC

CABF

CNBF

CLMBF

.02129

.02050

.02064

.02047

.00000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

.00000

.00019

.00078

.00087

.00302

.00000

CLMSC

CABF

CNBF

CLMBF

.02192

.02126

.02048

.02068

.00006

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

SPREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

REFERENCE DATA

XM: P = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

ALPHA = -4.000  
 BETA = -4.000  
 GRADIENT = 4.000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

RUDDER = -5.000  
 BOFLAP = 16.300  
 ELVN-R = -10.000

SPDBRK = 55.000  
 ELVN-L = -10.000  
 MACH = 1.100

CLMBF	CNBF	CABF	CLMSC	CASC	CNSC	CLMBF	CNBF	CABF	CLMSC	CASC	CNSC
-.02152	.02073	.00888	.00015	-.00095	-.00021	-.02152	.02073	.00888	.00015	-.00095	-.00021
-.01979	.01906	.00816	.00010	-.00061	-.00014	-.01979	.01906	.00816	.00010	-.00061	-.00014
-.02074	.01999	.00855	.00001	-.00005	-.00001	-.02074	.01999	.00855	.00001	-.00005	-.00001
.00010	-.00003	-.00004	-.00002	.00011	.00003	.00010	-.00003	-.00004	-.00002	.00011	.00003

CLMBF	CNBF	CABF	CLMSC	CASC	CNSC	CLMBF	CNBF	CABF	CLMSC	CASC	CNSC
-.02174	.02094	.00896	.00018	-.00113	-.00025	-.02174	.02094	.00896	.00018	-.00113	-.00025
-.02073	.01997	.00855	.00014	-.00089	-.00020	-.02073	.01997	.00855	.00014	-.00089	-.00020
.00013	-.00012	-.00005	-.00002	.00012	.00003	.00013	-.00012	-.00005	-.00002	.00012	.00003

CLMBF	CNBF	CABF	CLMSC	CASC	CNSC	CLMBF	CNBF	CABF	CLMSC	CASC	CNSC
-.02212	.02131	.00912	.00017	-.00109	-.00024	-.02212	.02131	.00912	.00017	-.00109	-.00024
-.02175	.02095	.00897	.00017	-.00110	-.00024	-.02175	.02095	.00897	.00017	-.00110	-.00024
.02072	-.00007	-.00003	.00011	-.00067	-.00015	.02072	-.00007	-.00003	.00011	-.00067	-.00015
.00008	-.00005	-.00005	-.00001	.00005	.00001	.00008	-.00005	-.00005	-.00001	.00005	.00001

CLMBF	CNBF	CABF	CLMSC	CASC	CNSC	CLMBF	CNBF	CABF	CLMSC	CASC	CNSC
-.02343	.02257	.00966	.00022	-.00140	-.00031	-.02343	.02257	.00966	.00022	-.00140	-.00031
-.02274	.02190	.00938	.00017	-.00107	-.00024	-.02274	.02190	.00938	.00017	-.00107	-.00024
-.02292	.02208	.00945	.00012	-.00077	-.00017	-.02292	.02208	.00945	.00012	-.00077	-.00017
.00006	-.00006	-.00003	-.00001	.00008	.00002	.00006	-.00006	-.00003	-.00001	.00008	.00002

CLMBF	CNBF	CABF	CLMSC	CASC	CNSC	CLMBF	CNBF	CABF	CLMSC	CASC	CNSC
-.02398	.02310	.00999	.00021	-.00130	-.00029	-.02398	.02310	.00999	.00021	-.00130	-.00029
-.02327	.02241	.00950	.00017	-.00108	-.00024	-.02327	.02241	.00950	.00017	-.00108	-.00024
-.02377	.02290	.00980	.00012	-.00075	-.00017	-.02377	.02290	.00980	.00012	-.00075	-.00017
.00003	-.00003	-.00001	-.00001	.00007	.00002	.00003	-.00003	-.00001	-.00001	.00007	.00002

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS I

(FE8D74) (23 AUG 75)

## REFERENCE DATA

REF = 2500.000 SQ.FT. XMRP = 1076.6800 IN. X0  
 YMRP = 474.5000 IN. Y0  
 ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPDRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .900

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0016	-0.0074	.00012	.00642	.01439	-0.01556
.000	-0.0003	-0.0016	.00002	.00637	.01468	-0.01545
4.000	.00006	.00025	-0.00004	.00634	.01481	-0.01538
GRADIENT	.00003	.00012	-0.00002	-0.00001	-0.00002	.00002

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0017	-0.0077	.00012	.00630	.01471	-0.01527
.000	-0.0007	-0.0033	.00005	.00626	.01462	-0.01518
4.000	-0.0003	-0.0015	.00002	.00624	.01458	-0.01514
GRADIENT	.00002	.00008	-0.00001	-0.00001	-0.00002	.00002

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0020	-0.0092	.00015	.00634	.01481	-0.01538
.000	-0.0014	-0.0063	.00010	.00624	.01457	-0.01513
4.000	-0.0006	-0.0026	.00004	.00622	.01452	-0.01507
GRADIENT	.00002	.00008	-0.00001	-0.00002	-0.00004	.00004

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0012	-0.0053	.00008	.00627	.01464	-0.01520
.000	-0.0015	-0.0069	.00011	.00600	.01400	-0.01454
4.000	-0.0007	-0.0030	.00005	.00602	.01405	-0.01459
GRADIENT	.00001	.00003	-0.00000	-0.00003	-0.00007	.00008

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-0.0018	-0.0080	.00013	.00611	.01427	-0.01481
.000	-0.0012	-0.0054	.00009	.00582	.01360	-0.01412
4.000	-0.0007	-0.0031	.00005	.00589	.01377	-0.01429
GRADIENT	.00001	.00006	-0.00001	-0.00003	-0.00006	.00007

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

(FE8075) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0370

## PARAMETRIC DATA

RUDDER = -5.000 SPCBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00025	-.00113	.00018	.00616	.01439	-.01494
-4.000	-.00018	-.00083	.00013	.00603	.01409	-.01463
.000	-.00014	-.00085	.00010	.00584	.01364	-.01416
4.000	-.00013	-.00061	.00010	.00593	.01384	-.01437
8.000	-.00006	-.00028	.00004	.00586	.01369	-.01422
GRADIENT	.00001	.00003	-.00000	-.00001	-.00003	.00003

RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00025	-.00114	.00018	.00640	.01496	-.01553
-4.000	-.00022	-.00098	.00016	.00601	.01405	-.01459
.000	-.00012	-.00054	.00009	.00594	.01368	-.01441
4.000	-.00012	-.00052	.00008	.00597	.01394	-.01447
8.000	-.00006	-.00026	.00004	.00593	.01385	-.01438
GRADIENT	.00001	.00006	-.00001	-.00001	-.00001	.00001

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00026	-.00115	.00018	.00641	.01496	-.01553
-4.000	-.00019	-.00084	.00013	.00617	.01440	-.01495
.000	-.00016	-.00073	.00012	.00580	.01355	-.01407
4.000	-.00012	-.00054	.00009	.00604	.01412	-.01466
8.000	-.00002	-.00008	.00001	.00600	.01402	-.01455
GRADIENT	.00001	.00004	-.00001	-.00002	-.00004	.00004

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-.00023	-.00102	.00016	.00650	.01518	-.01576
-4.000	-.00021	-.00095	.00015	.00610	.01424	-.01479
.000	-.00019	-.00084	.00013	.00577	.01348	-.01399
4.000	-.00006	-.00026	.00004	.00593	.01355	-.01438
8.000	-.00001	-.00005	.00001	.00604	.01410	-.01464
GRADIENT	.00002	.00009	-.00001	-.00002	-.00005	.00005

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

(FEED75) ( 23 AUG 75 )

REFERENCE DATA

REF = 2500.0000 SQ.FT. XMRP = 1076.6800 IN. XC  
LREF = 474.8000 IN. YMRP = .0000 IN. YC  
RREF = 336.6500 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0000

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-9.000	-.0032	-.00144	.00023	.00639	.01493	-.01547
-4.000	-.0020	-.00091	.00015	.00390	.01379	-.01432
.000	-.0022	-.00097	.00015	.00564	.01316	-.01367
4.000	-.0009	-.00042	.00007	.00578	.01349	-.01401
8.000	.0007	.00033	-.00005	.00501	.01405	-.01458
GRADIENT	.00001	.00006	-.00001	-.00002	-.00004	.00004

RUDDER = -5.000  
BDFLAP = 16.300  
ELVN-R = -10.000  
ELVN-L = -10.000  
MACH = .600  
SPCBRK = 55.000

PARAMETRIC DATA

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

(FEED76) ( 23 AUG 75 )

REFERENCE DATA

REF = 2500.0000 SQ.FT. XMRP = 1076.6800 IN. XC  
LREF = 474.8000 IN. YMRP = .0000 IN. YC  
RREF = 336.6500 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00013	-.00056	.00009	-.00158	.01869	-.01763
.000	-.00008	-.00037	.00006	-.00157	.01850	-.01754
4.000	-.00010	-.00044	.00007	-.00156	.01851	-.01746
GRADIENT	.00000	.00001	-.00000	.00000	-.00002	.00002

RUDDER = -10.000  
BDFLAP = -11.700  
ELVN-R = -10.000  
ELVN-L = 10.000  
MACH = 1.400  
SPCBRK = .000

PARAMETRIC DATA

ALPHA = .000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	-.00021	-.00096	.00015	-.00155	.01839	-.01735
.000	-.00015	-.00068	.00011	-.00156	.01852	-.01747
4.000	-.00012	-.00054	.00009	-.00158	.01874	-.01768
GRADIENT	.00001	.00005	-.00001	-.00000	.00004	-.00004

RUDDER = .000  
BDFLAP = .000  
ELVN-R = .000  
ELVN-L = .000  
MACH = .000  
SPCBRK = .000

PARAMETRIC DATA



(FEB076) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS I

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.400

REFERENCE DATA

SPEF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT  
 .00002  
 .00006  
 -.00013  
 -.00025  
 -.00113  
 .00018  
 .00010  
 .00004  
 -.00002  
 .00000  
 .00000  
 .01831  
 .01804  
 .01728  
 -.00030  
 CLMSF  
 -.01727  
 -.01701  
 -.01728  
 -.00030  
 CNBF  
 .01828  
 .01779  
 .01870  
 .00005  
 CLMBF  
 -.01724  
 -.01678  
 -.01764  
 -.00005

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT  
 .00001  
 .00004  
 -.00011  
 -.00021  
 -.00064  
 -.00093  
 .00015  
 .00010  
 .00008  
 -.00001  
 .00000  
 .00000  
 .01828  
 .01779  
 .01870  
 .00005  
 CLMSF  
 -.01724  
 -.01678  
 -.01764  
 -.00005  
 CNBF  
 .01828  
 .01779  
 .01870  
 .00005  
 CLMBF  
 -.01724  
 -.01678  
 -.01764  
 -.00005

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT  
 .00001  
 .00002  
 -.00013  
 -.00014  
 -.00065  
 -.00093  
 .00015  
 .00010  
 .00008  
 -.00001  
 .00000  
 .00000  
 .01828  
 .01779  
 .01870  
 .00005  
 CLMSF  
 -.01724  
 -.01678  
 -.01764  
 -.00005  
 CNBF  
 .01828  
 .01779  
 .01870  
 .00005  
 CLMBF  
 -.01724  
 -.01678  
 -.01764  
 -.00005

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT  
 .00001  
 .00002  
 -.00013  
 -.00014  
 -.00065  
 -.00093  
 .00015  
 .00010  
 .00008  
 -.00001  
 .00000  
 .00000  
 .01828  
 .01779  
 .01870  
 .00005  
 CLMSF  
 -.01724  
 -.01678  
 -.01764  
 -.00005  
 CNBF  
 .01828  
 .01779  
 .01870  
 .00005  
 CLMBF  
 -.01724  
 -.01678  
 -.01764  
 -.00005

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -40 A/B/C CAVITY, FOREBODY INCREMENTS 1

(FEED77) ( 23 AUG 75 )

# REFERENCE DATA

REF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
REF = 477.6000 IN. YMRP = .0000 IN. YO  
REF = 938.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
BOFLAP = -11.700 ELVN-L = 10.000  
ELVN-R = -10.000 MACH = 1.250

PN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-4.000	-.00023	-.00101	.00016	-.00172	.02045	-.01929
.000	-.00024	-.00106	.00017	-.00171	.02032	-.01917
4.000	-.00018	-.00083	.00013	-.00172	.02044	-.01928
GRADIENT	.00031	.00002	-.00000	.00000	-.00000	.00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-4.000	-.00025	-.00111	.00018	-.00168	.01995	-.01882
.000	-.00020	-.00090	.00014	-.00169	.01998	-.01835
4.000	-.00014	-.00064	.00010	-.00170	.02015	-.01901
GRADIENT	.00031	.00005	-.00001	-.00000	.00002	-.00002

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-4.000	-.00027	-.00120	.00019	-.00155	.01970	-.01858
.000	-.00014	-.00062	.00010	-.00162	.01925	-.01815
4.000	-.00009	-.00035	.00005	-.00170	.02015	-.01901
GRADIENT	.00032	.00011	-.00002	-.00000	.00005	-.00005

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-4.000	-.00025	-.00110	.00018	-.00168	.01987	-.01874
.000	-.00021	-.00093	.00015	-.00164	.01946	-.01836
4.000	-.00012	-.00055	.00009	-.00173	.02032	-.01936
GRADIENT	.00002	.00007	-.00001	-.00001	.00008	-.00008

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CNSC	CASC	CLMSC	CABF	CNSF	CLMSF
-4.000	-.00023	-.00104	.00016	-.00177	.02094	-.01975
.000	-.00011	-.00050	.00008	-.00175	.02081	-.01953
4.000	-.00023	-.00104	.00016	-.00175	.02081	-.01963
GRADIENT	-.00000	-.00000	.00000	.00000	-.00002	.00002

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

( FEB8078 ) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.6000 IN. YMRP = .0000 IN. YO  
BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = -10.000 SPOBRK = .000  
BDFLAP = -11.700 ELVN-L = 10.000  
ELVN-R = -10.000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-.00013  
-.00013  
-.00017  
-.00000

CASC  
-.00057  
-.00050  
-.00075  
-.00002

CLMSC  
.00009  
.00010  
.00012  
.00000

CABF  
-.00176  
-.00176  
-.00186  
-.00001

CNSF  
.02087  
.02091  
.02209  
.00015

CLMBF  
-.01959  
-.01973  
-.02084  
-.00014

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-.00013  
-.00014  
-.00016  
-.00000

CASC  
-.00057  
-.00065  
-.00071  
-.00002

CLMSC  
.00009  
.00010  
.00011  
.00000

CABF  
-.00159  
-.00170  
-.00177  
-.00001

CNSF  
-.00199  
.02014  
.02103  
.00013

CLMBF  
-.01886  
-.01920  
-.01984  
-.00012

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-.00015  
-.00014  
-.00013  
.00000

CASC  
-.00068  
-.00064  
-.00057  
.00001

CLMSC  
.00011  
.00010  
.00009  
-.00000

CABF  
-.00170  
-.00169  
-.00176  
-.00001

CNSF  
.02022  
.01958  
.02086  
.00008

CLMBF  
-.01907  
-.01884  
-.01958  
-.00038

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-.00016  
-.00018  
-.00016  
.00000

CASC  
-.00072  
-.00083  
-.00071  
.00000

CLMSC  
.00011  
.00013  
.00011  
-.00000

CABF  
-.00173  
-.00174  
-.00180  
-.00001

CNSF  
.02048  
.02065  
.02139  
.00011

CLMBF  
-.01931  
-.01949  
-.02017  
-.00011

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNSC  
-.00021  
-.00026  
-.00012  
.00001

CASC  
-.00092  
-.00118  
-.00054  
.00005

CLMSC  
.00015  
.00019  
.00009  
-.00001

CABF  
-.00182  
-.00187  
-.00188  
-.00001

CNSF  
.02160  
.02215  
.02230  
.00009

CLMBF  
-.02037  
-.02089  
-.02103  
-.00008

DATE 08 MAY 76

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

(F99079) ( 23 AUG 75 )

REFERENCE DATA

REF = 2590.000 SQ.FT. YMRP = 1076.6800 IN. X0  
 LREF = 477.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BOFLAP = -11.760 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNMF  
 .01371  
 .01430  
 .01417  
 .00015

CLMSC  
 .00014  
 .00116  
 .00121  
 .00127  
 .00001

CASC  
 -.00086  
 -.00138  
 -.00180  
 -.00012

CNSC  
 -.00019  
 -.00031  
 -.00040  
 -.00003

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNMF  
 .01237  
 .01307  
 .01410  
 .00022

CLMSC  
 .00010  
 .00111  
 .00117  
 .00126  
 .00002

CASC  
 -.00065  
 -.00092  
 -.00155  
 -.00011

CNSC  
 -.00014  
 -.00020  
 -.00034  
 -.00003

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNMF  
 .01246  
 .01306  
 .01452  
 .00026

CLMSC  
 .00012  
 .00115  
 .00119  
 .00122  
 .00002

CASC  
 -.00076  
 -.00115  
 -.00121  
 -.00006

CNSC  
 -.00017  
 -.00025  
 -.00027  
 -.00001

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNMF  
 .01247  
 .01319  
 .01425  
 .00022

CLMSC  
 .00018  
 .00114  
 .00119  
 .00120  
 .00002

CASC  
 -.00116  
 -.00090  
 -.00119  
 -.00000

CNSC  
 -.00026  
 -.00020  
 -.00027  
 -.00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNMF  
 .01334  
 .01375  
 .01420  
 .00015

CLMSC  
 .00017  
 .00117  
 .00116  
 .00127  
 .00001

CASC  
 -.00108  
 -.00112  
 -.00114  
 -.00001

CNSC  
 -.00024  
 -.00025  
 -.00025  
 -.00000

DATE 03 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY. FOREBODY INCREMENTS I

(FEEDBD) 1 23 AUG 75 )

REFERENCE DATA

REF = 2630.0000 SQ. FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 RREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = 0.000

PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .600

ALPHA = -4.000  
 BETA = -8.000  
 GRADIENT = 8.000

RV/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

CASC CLMSC CLMBF  
 -0.0178 -0.0028 -0.0130  
 -0.0164 -0.0026 -0.0133  
 -0.0184 -0.0029 -0.0145  
 -0.0041 -0.0037 -0.0122  
 -0.0051 -0.0030 -0.0130  
 -0.0020 -0.0034 -0.0153  
 -0.0022 -0.0033 -0.0153  
 -0.0008 -0.0001 -0.0002

ALPHA = .000  
 BETA = -8.000  
 GRADIENT = 8.000

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CASC CLMSC CLMBF  
 -0.0123 -0.0020 -0.0113  
 -0.0181 -0.0026 -0.0114  
 -0.0185 -0.0029 -0.0119  
 -0.0041 -0.0035 -0.0150  
 -0.0049 -0.0035 -0.0150  
 -0.0055 -0.0040 -0.0157  
 -0.0002 -0.0001 -0.0002

ALPHA = 4.000  
 BETA = -8.000  
 GRADIENT = 8.000

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CASC CLMSC CLMBF  
 -0.0131 -0.0021 -0.0109  
 -0.0145 -0.0023 -0.0110  
 -0.0202 -0.0032 -0.0114  
 -0.0020 -0.0033 -0.0123  
 -0.0046 -0.0039 -0.0122  
 -0.0054 -0.0001 -0.0002

ALPHA = 8.000  
 BETA = -8.000  
 GRADIENT = 8.000

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CASC CLMSC CLMBF  
 -0.0133 -0.0021 -0.0106  
 -0.0146 -0.0023 -0.0107  
 -0.0136 -0.0032 -0.0115  
 -0.0205 -0.0033 -0.0119  
 -0.0029 -0.0046 -0.0127  
 -0.0007 -0.0001 -0.0002

DATE 13 MAY 76

TABULAR 3

AT: - 0A148 (AMES 11-073-1)

PA: 24

48 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

IFE9801 (23 AUG 75)

## REFERENCE DATA

CF = 2690.0000 SQ.FT.  
 YMRP = 474.8000 IN.  
 YMRP = 936.6800 IN.  
 ZMRP = .0300

0 IN. ZO  
 .00 IN. YO  
 .00 IN. ZO

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .600

4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA =

	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-8.000	-0.0028	-0.0124	.00020	-0.0107	.01269	-0.0197
-4.000	-0.0028	-0.0127	.00020	-0.0108	.01276	-0.0203
.000	-0.0038	-0.0169	.00027	-0.0111	.01317	-0.0242
4.000	-0.0040	-0.0180	.00029	-0.0114	.01353	-0.0275
8.000	-0.0056	-0.0249	.00040	-0.0124	.01474	-0.0340
GRADIENT	-0.00001	-0.00007	.00001	-0.00031	.00010	-0.00309

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

IFE9801 (23 AUG 75)

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 YMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUN NO. 0/ 0 RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
ALPHA	BETA					
-4.000	.000	-0.00016	-0.00073	-0.0162	.01923	-0.01814
GRADIENT		.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
ALPHA	BETA					
.000	.000	-0.00015	-0.00068	-0.0160	.01899	-0.01791
GRADIENT		.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
ALPHA	BETA					
4.000	-4.000	-0.00013	-0.00059	-0.0159	.01889	-0.01782
4.000	.000	-0.00011	-0.00049	-0.0157	.01860	-0.01754
4.000	4.000	-0.00018	-0.00079	-0.0157	.01854	-0.01758
GRADIENT		-0.00001	-0.00003	.00000	.00000	.00003

RUDDER = 10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.400

## PARAMETRIC DATA

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

(FE9D81) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = 10.000  
 BDFLAP = -11.700  
 ELVN-R = 10.000  
 MACH = 1.400

SPDBRK = .000  
 ELVN-L = -10.000  
 MACH = 1.400

RUN NO. 0/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA 8.000 BETA .000 CASC .00052 CLMSC .00008 CABF -.00155 CNBF .01836  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000

CLMBF  
 -.01732  
 .00000

RUN NO. 0/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA 12.000 BETA -4.000 CASC -.00093 CLMSC .00015 CABF -.00167 CNBF .01976  
 12.000 .000 .00020 .00014 .00160 .01898  
 12.000 4.000 .00022 .00015 .00165 .01973  
 GRADIENT -.00000 -.00001 .00000 .00000 .00000 .00000

CLMBF  
 -.01854  
 -.01791  
 -.01861  
 .00000

RUN NO. 0/ 0 RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA 16.000 BETA .000 CASC -.00125 CLMSC .00020 CABF -.00169 CNBF .02003  
 GRADIENT -.00028 .00000 .00000 .00000 .00000 .00000

CLMBF  
 -.01899  
 .00000

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

(FE9D82) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = 10.000  
 BDFLAP = -11.700  
 ELVN-R = 10.000  
 MACH = 1.250

SPDBRK = .000  
 ELVN-L = -10.000  
 MACH = 1.250

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA -4.000 BETA .000 CASC -.00083 CLMSC .00013 CABF -.00171 CNBF .02033  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000

CLMBF  
 -.01918  
 .00000

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA .000 BETA .000 CASC -.00062 CLMSC .00010 CABF -.00171 CNBF .02029  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000

CLMBF  
 -.01914  
 .00000

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

(FEB092) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.250

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CASC	CNSC	CLMSC	CABF	CNBF	CLMBF
4.000	-4.000	-0.0017	-0.0017	.00012	-0.0173	.02052	-0.01936
4.000	.000	-0.0011	-0.0049	.00008	-0.0170	.02016	-0.01931
4.000	4.000	-0.0011	-0.0051	.00008	-0.0171	.02023	-0.01908
	GRADIENT	.00001	.00003	-0.0001	.00000	-0.00004	.00003

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CASC	CNSC	CLMSC	CABF	CNBF	CLMBF
8.000	.000	-0.0007	-0.0031	.00005	-0.0167	.01983	-0.01871
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CASC	CNSC	CLMSC	CABF	CNBF	CLMBF
12.000	-4.000	-0.0016	-0.0071	.00011	-0.0182	.02160	-0.02037
12.000	.000	-0.0023	-0.0105	.00017	-0.0177	.02094	-0.01975
12.000	4.000	-0.0020	-0.0088	.00014	-0.0180	.02135	-0.02014
	GRADIENT	-0.00000	-0.00002	.00000	.00000	-0.00003	.00003

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.100

RUN NO. 0/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CASC	CNSC	CLMSC	CABF	CNBF	CLMBF
-4.000	.000	-0.0018	-0.0083	.00013	-0.0180	.02135	-0.02014
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CASC	CNSC	CLMSC	CABF	CNBF	CLMBF
.000	.000	-0.0016	-0.0071	.00011	-0.0175	.02077	-0.01859
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

(FEB093) ( 23 AUG 75 )



0A148 -140 A/B/C CAVITY. FOREBODY INCREMENTS !  
(FE8083) ( 23 AUG 75 )

## REFERENCE DATA

SREF =	2690.0000	50.FT.	XMRP =	1076.6800	IN.	X0
LREF =	474.8300	IN.	YMRP =	.0000	IN.	Y0
BREF =	936.6300	IN.	ZMRP =	375.0000	IN.	Z0
SCALE =	.0300					

## PARAMETRIC DATA

RUDDER =	10.000	SPDBRK =	.000
BDFLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	1.100

RUN NO.	0/ 0	RN/L = 3.20	GRADIENT INTERVAL = -5.00/ 5.00
---------	------	-------------	---------------------------------

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
4.000	-4.000	-.00017	-.00076	.00012	-.00181	.02145	-.02023
4.000	.000	-.00012	-.00053	.00008	-.00171	.02027	-.01912
4.000	4.000	-.00017	-.00075	.00012	-.00172	.02044	-.01928
	GRADIENT	.00000	.00000	-.00000	.00001	-.00013	.00012

RUN NO.	0/ 0	RN/L = 3.20	GRADIENT INTERVAL = -5.00/ 5.00
---------	------	-------------	---------------------------------

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
8.000	.000	-.00015	-.00066	.00010	-.00175	.02080	-.01962
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	0/ 0	RN/L =	3.20	GRADIENT INTERVAL =	-5.00/	5.00
---------	------	--------	------	---------------------	--------	------

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
12.000	-4.000	-.00029	-.00131	.00021	-.00195	.02317	-.02186
12.000	000	-.00020	-.00092	.00015	-.00189	.02238	-.02111
12.000	4.000	-.00019	-.00084	.00013	-.00185	.02190	-.02065
GRADIENT		.00001	.00005	-.00001	.00001	-.00016	.00015

0A148 -140 A/B/C CAVITY. FOREBODY INCREMENTS I

## REFERENCE DATA

SREF	=	2690.0000	50.FT.	XMRP	=	1076.6800	IN.	X0
LREF	=	474.8000	IN.	YMRP	=	.0000	IN.	Y0
BREF	=	935.6800	IN.	ZMRP	=	375.0000	IN.	Z0
SCALE	=	.0300						

## PARAMETRIC DATA

RUDDER =	10.000	SPDBRK =	.000
BOFLAP =	-11.700	ELVN-L =	-10.000
ELVN-R =	10.000	MACH =	.900

RUN NO.	0/ 0	RN/L =	3.59	GRADIENT INTERVAL =	-5.00/	5.00
---------	------	--------	------	---------------------	--------	------

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNEF	CLMBF
-4.000	.000	-.00018	-.00082	.00013	-.00126	.01489	-.01405
	GRADIENT	.00030	.00000	.00000	.00000	.00000	.00000

RUN NO.	0/ 0	RN/L =	3.59	GRADIENT INTERVAL =	-5.00/ 5.00
---------	------	--------	------	---------------------	-------------

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
.000	.000	-.00026	-.00115	.00018	-.00120	.01426	-.01345
	GRADIENT	.00000	.00000	.00000	.00030	.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( FEB84 ) ( 23 AUG 75 )

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS I

REFERENCE DATA

LRPF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = .000  
BDFLAP = -11.700 ELVN-L = -10.000  
ELVN-R = 10.000 MACH = .900

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
4.000	-4.000	-0.0032	-0.0144	.00023	-0.0124	.01467	-0.01384
4.000	.000	-0.0027	-0.0124	.00020	-0.0118	.01400	-0.01320
4.000	4.000	-0.0015	-0.0069	.00011	-0.0111	.01318	-0.01244
	GRADIENT	.00002	.00009	-0.0001	.00002	-0.0019	.00018

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
8.000	.000	-0.0022	-0.0100	.00016	-0.0113	.01343	-0.01267
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
12.000	.000	-0.0024	-0.0107	.00017	-0.0120	.01423	-0.01342
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS I

( FEB85 ) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = .000  
BDFLAP = -11.700 ELVN-L = -10.000  
ELVN-R = 10.000 MACH = .800

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
-4.000	.000	-0.0053	-0.0236	.00038	-0.0129	.01524	-0.01437
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNSC	CASC	CLMSC	CABF	CNBF	CLMBF
.000	.000	-0.0046	-0.0207	.00033	-0.0127	.01501	-0.01416
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(FE8085) ( 23 AUG 75 )

0A148 -140 A/B/C CAVITY, FOREBODY INCREMENTS 1

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 GRADIENT .0000

CNSC .00036  
 CASC -.00164  
 CLMSC .00026  
 CABF -.00123  
 CNBF .01456  
 CLMBF -.01374  
 .00000

RUDDER = 10.000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 GRADIENT .0000

CNSC -.00036  
 CASC -.00161  
 CLMSC .00026  
 CABF -.00120  
 CNBF .01423  
 CLMBF -.01342  
 .00000

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 GRADIENT .0000

CNSC -.00034  
 CASC -.00154  
 CLMSC .00024  
 CABF -.00124  
 CNBF .01469  
 CLMBF -.01385  
 .00000

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8D31) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 GRADIENT .0000

CNSC -.00053  
 CAS -.00101  
 CLMS .00086  
 CAG .16934  
 CNG .11384  
 CLMG .24399  
 CYB .00000  
 CYNB .00000  
 CBL6 .00000

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( GEBD01 ) ( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-.00052	-.00099	.00084	.11209	.16574	.24025	.00000	.00000	.00000
.000	-.00051	-.00093	.00083	.10568	.15720	.22649	.00000	.00000	.00000
4.000	-.00052	-.00094	.00084	.11170	.16616	.23940	.00000	.00000	.00000
GRADIENT	-.00000	-.00097	.00000	-.00005	-.00007	-.00011	.00000	.00000	.00000

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-.00051	-.00097	.00082	.11212	.16578	.24030	.00000	.00000	.00000
.000	-.00049	-.00093	.00079	.10873	.16173	.23033	.00000	.00000	.00000
4.000	-.00050	-.00095	.00081	.11356	.16893	.24340	.00000	.00000	.00000
GRADIENT	.00000	-.00000	-.00000	.00018	.00027	.00039	.00000	.00000	.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-.00052	-.00099	.00084	.11447	.17028	.24534	.00000	.00000	.00000
.000	-.00049	-.00095	.00080	.10925	.16251	.23415	.00000	.00000	.00000
4.000	-.00050	-.00096	.00082	.11280	.16779	.24176	.00000	.00000	.00000
GRADIENT	.00000	.00000	-.00003	-.00021	-.00031	-.00045	.00000	.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-.00053	-.00101	.00085	.11121	.16943	.23835	.00000	.00000	.00000
.000	-.00052	-.00100	.00085	.11179	.16629	.23960	.00000	.00000	.00000
4.000	-.00053	-.00101	.00086	.11369	.16912	.24368	.00000	.00000	.00000
GRADIENT	-.00000	-.00000	.00000	.00031	.00046	.00067	.00000	.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-.00056	-.00107	.00091	.11392	.16946	.24417	.00000	.00000	.00000
.000	-.00055	-.00105	.00089	.11696	.17399	.25060	.00000	.00000	.00000
4.000	-.00056	-.00108	.00091	.11833	.17603	.25362	.00000	.00000	.00000
GRADIENT	-.00000	-.00000	.00000	.00055	.00082	.00118	.00000	.00000	.00000

STABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

Q A 148 - 140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

## REFERENCE DATA

```

SREF = 2530.0000 SQ.FT.      XMAP = 1076.6800 IN. X0
LREF = 474.6000 IN.         YMAP = .0000 IN. Y0
BREF = 936.6800 IN.         ZMAP = 375.0000 IN. Z0
SCALE = .0300

```

BN/1 =	3.01	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = -4.000  
BETA = -4.000  
GRADIENT = 4.000

CY6	CY5	CBL5
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000

PN/I = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA =  
BETA  
- 1.00  
.00  
5.00  
GRADIENT

CY6	CYN6	CBL6
.00000	.00300	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000

RN/L =	3.01	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = 4.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CY6	CYN5	CSL6
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000

BN/I =	3.01	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = 8.000  
BETA  
-4.000  
.000  
4.000  
GRADIENT

CY6	CYN5	CBL6
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000

BN(1) = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.003  
BETA  
-4.000  
0.003  
4.000  
GRADIENT

CY6	CYN5	CBL6
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000

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TABLED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(056003) ( 23 AUG 75 )

## REFERENCE DATA

REF = 2590.000 SQ.FT. XMRP = 1076.6800 IN. XO  
 REF = 474.8000 IN. YMRP = .0000 IN. YO  
 REF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00064  
 -.00061  
 -.00059  
 -.00055  
 -.00000  
 CLM5  
 .00104  
 .00059  
 .00106  
 .00000  
 CLM6  
 .15649  
 .14903  
 .15860  
 .00026  
 CAS  
 -.00123  
 -.00117  
 -.00125  
 -.00000  
 CY5  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 CEL5  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 CEL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00061  
 -.00060  
 -.00058  
 -.00051  
 -.00000  
 CLM5  
 .00099  
 .00099  
 .00099  
 .00000  
 CLM6  
 .15433  
 .14257  
 .15324  
 -.00014  
 CAS  
 -.00116  
 -.00115  
 -.00116  
 -.00000  
 CY5  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 CY6  
 .00000  
 .00000  
 .00000  
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 .00000  
 CEL5  
 .00000  
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 .00000  
 .00000  
 CEL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00059  
 -.00051  
 -.00050  
 -.00050  
 -.00000  
 CLM5  
 .00095  
 .00039  
 .00098  
 .00000  
 CLM6  
 .15030  
 .13331  
 .14596  
 -.00042  
 CAS  
 -.00114  
 -.00117  
 -.00116  
 -.00000  
 CY5  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 CY6  
 .00000  
 .00000  
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 .00000  
 CEL5  
 .00000  
 .00000  
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 .00000  
 .00000  
 CEL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00063  
 -.00063  
 -.00053  
 -.00000  
 CLM5  
 .00103  
 .00102  
 .00103  
 -.00000  
 CLM6  
 .15195  
 .13641  
 .14937  
 -.00032  
 CAS  
 -.00121  
 -.00121  
 -.00121  
 .00000  
 CY5  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 CY6  
 .00000  
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 CEL5  
 .00000  
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 .00000  
 .00000  
 CEL6  
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 .00000  
 .00000  
 .00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00064  
 -.00064  
 -.00064  
 -.00000  
 CLM5  
 .00102  
 .00104  
 .00105  
 .00000  
 CLM6  
 .15309  
 .15327  
 .15137  
 -.00022  
 CAS  
 -.00122  
 -.00122  
 -.00123  
 -.00000  
 CY5  
 .00000  
 .00000  
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 CY6  
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 CEL5  
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 CEL6  
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DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/P VERTICAL T. BASE INCREMENTS 1 (GE8004) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6300 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = .900

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

.00000

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RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

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RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

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RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

.00000

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.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

.00000

.00000

.00000

.00000

.00000

DATE 09 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(050005) 1 23 AUG 75

## REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 REF = 474.8000 IN. YMRP = .0000 IN. Y0  
 REF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000  
 BOFLAP = 15.300  
 ELVN-L = .000  
 ELVN-R = .600

ALPHA = -4.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

CAS	CNS	CLM5	CN6	CAS6	CLM6	CY6	CY45	CBL6
-0.0043	-0.0082	.00071	.14120	.21004	.30263	.00000	.00000	.00000
-0.0043	-0.0082	.00070	.13205	.19644	.26333	.00000	.00000	.00000
-0.0043	-0.0083	.00070	.12518	.18620	.25639	.00000	.00000	.00000
-0.0043	-0.0083	.00072	.13675	.20342	.26339	.00000	.00000	.00000
-0.0043	-0.0083	.00070	.14565	.21685	.27217	.00000	.00000	.00000
-0.0000	-0.0000	.00000	.00059	.00067	.00136	.00000	.00000	.00000

ALPHA = .000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

CAS	CNS	CLM5	CN6	CAS6	CLM6	CY6	CY45	CBL6
-0.0042	-0.0081	.00068	.14247	.22235	.32036	.00000	.00000	.00000
-0.0042	-0.0081	.00069	.13954	.20802	.29972	.00000	.00000	.00000
-0.0042	-0.0081	.00069	.12800	.19340	.27434	.00000	.00000	.00000
-0.0043	-0.0082	.00069	.14027	.20656	.30064	.00000	.00000	.00000
-0.0041	-0.0079	.00067	.15111	.22478	.32387	.00000	.00000	.00000
-0.0000	-0.0000	.00000	.00005	.00008	.00012	.00000	.00000	.00000

ALPHA = 4.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

CAS	CNS	CLM5	CN6	CAS6	CLM6	CY6	CY45	CBL6
-0.0041	-0.0079	.00067	.14305	.21279	.30659	.00000	.00000	.00000
-0.0039	-0.0075	.00053	.13063	.19431	.27997	.00000	.00000	.00000
-0.0041	-0.0077	.00067	.12827	.19080	.27491	.00000	.00000	.00000
-0.0040	-0.0075	.00066	.13222	.19668	.28330	.00000	.00000	.00000
-0.0000	-0.0000	.00000	.13553	.20310	.29263	.00000	.00000	.00000
-0.0000	-0.0000	.00000	.00000	.00030	.00043	.00000	.00000	.00000

ALPHA = 8.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

CAS	CNS	CLM5	CN6	CAS6	CLM6	CY6	CY45	CBL6
-0.0040	-0.0077	.00066	.11416	.16962	.24468	.00000	.00000	.00000
-0.0041	-0.0079	.00067	.13033	.19387	.27934	.00000	.00000	.00000
-0.0039	-0.0074	.00063	.12625	.18720	.27058	.00000	.00000	.00000
-0.0042	-0.0080	.00067	.13375	.19996	.28666	.00000	.00000	.00000
-0.0042	-0.0080	.00069	.11690	.17389	.25055	.00000	.00000	.00000
-0.0000	-0.0000	.00000	.00043	.00064	.00092	.00000	.00000	.00000



STAR"ATED FORCE DATA - 0A148 ( AMES 11-075-1 )

00A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

RECEIVED : 23 AUG 75 )

## REFERENCE DATA

SREF =	2690.0000	53.FT.	YMRP =	1076.6800	IN. X0
REF =	474.8000	IN.	YMRP =	.0000	IN. Y0
SREF =	936.6800	IN.	ZMRP =	375.0000	IN. Z0
SCALE =	.0300				

RUDDER =	.000	3.000
80FLAP =	16.300	ELVN-L =
ELVN-R =	.000	MACH

RM/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-8.000  
-4.000  
-1.000  
4.000  
8.000  
GRADIENT

CLM6	CY6	CY5	CLB6
-31733	-00000	-00000	-00000
-27075	-00000	-00000	-00000
-27007	-00000	-00000	-00000
-27480	-00000	-00000	-00000
-33106	-00000	-00000	-00000
00024	-00000	-00000	-00000

COA148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(OFFICIAL) (25 AUG 75)

## REFERENCE DATA

=	2690.0000	SQ.FT.	=	1076.6800	IN. X0
SREF	=	474.8000	IN.	YRP	IN. Y0
LREF	=	935.6900	IN.	ZRP	IN. Z0
BREF	=				
SCALE	=				

RUGGER	=	.000	=	95.000
BDFAP	=	22.500	=	.000
FWN-R	=	.000	=	.600
FLY-J				
SEBX				

RN/L =	4.84	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = -4.000  
BETA  
-8.000  
-4.000  
.000  
4.000  
8.000  
GRADIENT

30578	00000	00000	00000
29071	00000	00000	00000
27220	00000	00000	00000
30050	00000	00000	00000
32455	00000	00000	00000
00122	00000	00000	00000

ENVI = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA =	.000
BETA	-8.000
	-4.000
	.000
	.000
	8.000
GRADIENT	

CLM5	CY6	CY5E	CBL5
32555	.00000	.00000	.00000
32577	.00000	.00000	.00000
27420	.00000	.00000	.00000
31089	.00000	.00000	.00000
33563	.00000	.00000	.00000
33563	.00000	.00000	.00000

00A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

1929

## REFERENCE DATA

2600	2600	50. FT.	XMAP	=
174	174	6.00 IN.	YMAP	=
936	936	6.00 IN.	ZMAP	=
534	534	5.00		

RUSSIA	0.00	0.00	0.00
ECUADOR	22.50	0.00	0.00
EL SALVADOR	0.00	0.00	0.00
GUATEMALA	0.00	0.00	0.00
PARAGUAY	0.00	0.00	0.00
PERU	0.00	0.00	0.00
PUERTO RICO	0.00	0.00	0.00
URUGUAY	0.00	0.00	0.00
VENEZUELA	0.00	0.00	0.00
YUGOSLAVIA	0.00	0.00	0.00
ZAMBIA	0.00	0.00	0.00
ZIMBABWE	0.00	0.00	0.00

[illegible]

RM/L =	4.82	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

**ALPHA**

65  
66  
67  
68

0 41  
0 1 -  
0 1 4 J  
- 10

က

53

CLMS

CN5

377

1120

5

“

10

RVL =	4.81	GRADIENT INTERVAL =	-5.00/	5.00
-------	------	---------------------	--------	------

41

6

9

MODEL =	3.86	GRADIENT INTERVAL =	-5.00/	5.00
---------	------	---------------------	--------	------

2043

6  
 7  
 8

6

DATE CB MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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00149 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(GE8007) ( 04 FEB 76 )

REFERENCE DATA

SPEF	=	2690.0000	50.FT.	XMRP	=	1076.6800	IN.	XO
LREF	=	474.8000	IN.	YMRP	=	.0000	IN.	YO
BPEF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	ZO
SCALE	=	.0300						

## PARAMETRIC DATA

RUDDER =	.000	SPOBRK =	55.000
BOFLAP =	22.500	ELVN-L =	.000
ELVN-R =	.000	MACH =	.900

RN/L =	3.58	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	=	-4.000	BETA	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
		-4.000		-0.0053	-0.0102	.00086	.12003	.17855	.25726	.00000	.00000	.00000
				-0.0051	-0.0098	.00083	.11113	.16531	.23818	.00000	.00000	.00000
				-0.0053	-0.0102	.00086	.11941	.17762	.25592	.00000	.00000	.00000
				-0.0000	-0.0000	.00000	-.00008	-.00012	-.00017	.00000	.00000	.00000

RN/L =	3.59	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	BETA	CAS	CLMS	CM6	CL6	CLM6	CY6	CYN6	C9L6
=	-.000	CNS	CLMS	CM6	CL6	CLM6	CY6	CYN6	C9L6
		-.00052	-.00100	.12314	.18317	.26392	.00000	.00000	.00000
	-4.000	-.00049	.00080	.11255	.16743	.24124	.00000	.00000	.00000
	.000	-.00051	.00097	.12458	.18532	.26702	.00000	.00000	.00620
	4.000	-.00000	-.00000	.00018	.00027	.00039	.00000	.00000	.00000
	GRACIENT								

RN/L =	3.59	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA	BETA	CAS	CLM5	CLM6	CAS	CLM6	CY6	CYN6	CB6
4.000		CN5			CN6				
		-0.0048	-0.0078	-0.25836	.17931	.25836	-0.0000	-0.0000	-0.0000
	-4.000	-0.0049	-0.0080	.24603	.17075	.24603	-0.0000	-0.0000	-0.0000
	.000	-0.0049	-0.0080	.18292	.26356	.26356	-0.0000	-0.0000	-0.0000
	4.000	-0.0049	-0.0080	.00030	.00045	.00065	-0.0000	-0.0000	-0.0000
	GRADIENT	-0.0000	.00000	.00000	.00000	.00000	-0.0000	-0.0000	-0.0000

RN/L = 3.58    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RM/L =	3.59	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

[illegible]

DATE 08 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8008) ( 23 AUG 75 )

REFERENCE DATA

SPEC = 2690.0000 SQ.FT. XMRP = 1075.6900 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 ELVA-L = .000  
 ELVN-R = .000 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00057	-.00110	.00093	.12063	.17675	.25679	.00000	.00000	.00000
-.00055	-.00105	.00089	.11711	.17158	.24929	.00000	.00000	.00000
-.00055	-.00105	.00089	.12631	.18506	.26898	.00000	.00000	.00000
.00000	.00001	-.00000	.00071	.00104	.00151	.00000	.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00057	-.00109	.00092	.12425	.18205	.26449	.00000	.00000	.00000
-.00057	-.00108	.00092	.12017	.17607	.25811	.00000	.00000	.00000
-.00056	-.00107	.00091	.12774	.18716	.27192	.00000	.00000	.00000
.00000	.00000	-.00000	.00044	.00064	.00033	.00000	.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00054	.00103	.00087	.12375	.18132	.26344	.00000	.00000	.00000
-.00054	.00104	.00088	.12409	.18181	.26414	.00000	.00000	.00000
-.00054	.00104	.00088	.12671	.18565	.26972	.00000	.00000	.00000
.00000	.00000	.00000	.00037	.00054	.00079	.00000	.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00055	-.00105	.00089	.12489	.18298	.26585	.00000	.00000	.00000
-.00054	-.00103	.00088	.12475	.18278	.26556	.00000	.00000	.00000
-.00056	-.00107	.00091	.12921	.18931	.27505	.00000	.00000	.00000
.00000	.00000	.00000	.00054	.00079	.00115	.00000	.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00055	-.00106	.00090	.12283	.17997	.26147	.00000	.00000	.00000
-.00056	-.00106	.00090	.12665	.18556	.26960	.00000	.00000	.00000
-.00058	-.00112	.00095	.12804	.18760	.27255	.00000	.00000	.00000
.00000	.00001	.00001	.00065	.00095	.00138	.00000	.00000	.00000

DATE 08 MAY 76

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## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I (0E8D08) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = .000 SPOBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS	CNS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CBL6
-.00115	-.00050	.00098	.12738	.18664	.27116	.00000	.00000	.00000
-.00111	-.00058	.00094	.13095	.19186	.27875	.00000	.00000	.00000
-.00117	-.00061	.00099	.13109	.19207	.27906	.00000	.00000	.00000
-.00000	-.00000	.00000	.00046	.00068	.00099	.00000	.00003	.00000

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RUDDER = .000 SPOBRK = 85.000  
 BOFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS	CNS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CBL6
-.00134	-.00070	.00114	.15395	.22556	.32771	.00000	.00000	.00000
-.00115	-.00060	.00097	.14221	.20837	.30273	.00000	.00000	.00000
-.00128	-.00067	.00109	.15304	.22423	.32579	.00000	.00000	.00000
.00001	.00000	-.00001	-.00011	-.00017	-.00024	.00000	.00000	.00000

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS	CNS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CBL6
-.00121	-.00063	.00103	.14785	.21663	.31474	.00000	.00000	.00000
-.00117	-.00061	.00099	.13498	.19777	.28733	.00000	.00000	.00000
-.00122	-.00064	.00104	.15257	.22354	.32478	.00000	.00000	.00000
-.00000	-.00000	.00000	.00059	.00086	.00125	.00000	.00003	.00000

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

REFERENCE DATA

PARAMETRIC DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. X0 RUDDER = .000 SPOBRK = 85.000  
LREF = 474.9000 IN. YMRP = .0000 IN. Y0 BDFLAP = 22.500 ELVN-L = .000  
SREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0 ELVN-R = .000 MACH = 1.250  
SCALE = .0300

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-4.000  
4.000  
GRADIENT  
CNS  
-.00061  
-.00061  
-.00063  
-.00000  
CAS  
-.00117  
-.00117  
-.00121  
-.00000  
CLM5  
.00100  
.00099  
.00103  
.00000  
CM6  
.14633  
.12670  
.14880  
.00031  
CA6  
.21440  
.18564  
.21802  
.00045  
CLM6  
.31150  
.26971  
.31675  
.00065  
CY6  
.00000  
.00000  
.00000  
.00000  
CYN6  
.00000  
.00000  
.00000  
.00000  
CBL6  
.00000  
.00000  
.00000  
.00000

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-4.000  
4.000  
GRADIENT  
CNS  
-.00053  
-.00061  
-.00065  
-.00000  
CAS  
-.00121  
-.00116  
-.00127  
-.00001  
CLM5  
.00102  
.00099  
.00108  
.00001  
CM6  
.13986  
.12524  
.14517  
.00066  
CA6  
.20492  
.18349  
.21271  
.00097  
CLM6  
.29772  
.26659  
.30904  
.00141  
CY6  
.00000  
.00000  
.00000  
.00000  
CYN6  
.00000  
.00000  
.00000  
.00000  
CBL6  
.00000  
.00000  
.00000  
.00000

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
BETA  
-4.000  
4.000  
GRADIENT  
CNS  
-.00055  
-.00063  
-.00066  
-.00000  
CAS  
-.00124  
-.00120  
-.00126  
-.00000  
CLM5  
.00105  
.00102  
.00107  
.00000  
CM6  
.13315  
.12482  
.14082  
.00096  
CA6  
.19509  
.18289  
.20632  
.00140  
CLM6  
.28344  
.25572  
.29976  
.00204  
CY6  
.00000  
.00000  
.00000  
.00000  
CYN6  
.00000  
.00000  
.00000  
.00000  
CBL6  
.00000  
.00000  
.00000  
.00000



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8011) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XC  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = .000  
 BDFLAP = 22.500  
 ELVN-R = .000  
 ELVN-L = .000  
 MACH = .900

## PARAMETRIC DATA

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CNS  
 -.00054  
 -.00050  
 -.00054  
 -.00000

CAS  
 -.00103  
 -.00095  
 -.00104  
 -.00000

CLM5  
 .00087  
 .00081  
 .00088  
 .00000

CN6  
 .10728  
 .09941  
 .10354  
 -.00047

CA6  
 .15718  
 .14566  
 .15171  
 -.00068

CLM6  
 .22837  
 .21162  
 .22041  
 -.00099

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CNS  
 -.00055  
 -.00051  
 -.00054  
 .00000

CAS  
 -.00105  
 -.00098  
 -.00103  
 .00000

CLM5  
 .00089  
 .00083  
 .00087  
 -.00000

CN6  
 .10767  
 .10371  
 .10534  
 -.00029

CA6  
 .15776  
 .15195  
 .15435  
 -.00043

CLM6  
 .22921  
 .22077  
 .22425  
 -.00052

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CNS  
 -.00054  
 -.00052  
 -.00054  
 .00000

CAS  
 -.00104  
 -.00099  
 -.00103  
 .00000

CLM5  
 .00088  
 .00084  
 .00088  
 -.00000

CN6  
 .11248  
 .10518  
 .10859  
 -.00049

CA6  
 .16480  
 .15411  
 .15910  
 -.00071

CLM6  
 .23944  
 .22390  
 .23116  
 -.00104

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CNS  
 -.00054  
 -.00051  
 -.00055  
 -.00000

CAS  
 -.00103  
 -.00098  
 -.00105  
 -.00000

CLM5  
 .00088  
 .00083  
 .00089  
 .00000

CN6  
 .11545  
 .11080  
 .11458  
 -.00023

CA6  
 .17062  
 .16234  
 .16788  
 -.00034

CLM6  
 .24788  
 .23586  
 .24391  
 -.00050

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CNS  
 -.00057  
 -.00055  
 -.00056  
 .00000

CAS  
 -.00109  
 -.00106  
 -.00107  
 .00000

CLM5  
 .00092  
 .00090  
 .00091  
 -.00000

CN6  
 .12238  
 .12309  
 .12791  
 .00069

CA6  
 .17931  
 .18035  
 .18742  
 .00101

CLM6  
 .26032  
 .26203  
 .27229  
 .00147

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000



DATE 08 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(GE8D12) ( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
BDFLAP = 22.500 ELVN-L = .000  
ELVN-R = .000 MACH = .600

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-8.000	-.00055	-.00104	.00089	.14269	.20907	.30375	.00000	.00000	.00000
-4.000	-.00053	-.00101	.00086	.13419	.19861	.28565	.00000	.00000	.00000
.000	-.00050	-.00096	.00082	.12908	.18913	.27479	.00000	.00000	.00000
4.000	-.00053	-.00101	.00086	.13304	.19492	.28320	.00000	.00000	.00000
8.000	-.00055	-.00105	.00089	.14253	.20883	.30340	.00000	.00000	.00000
GRADIENT	-.00000	-.00000	.00000	-.00014	-.00021	-.00031	.00000	.00000	.00000

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-8.000	-.00054	-.00102	.00087	.14695	.21531	.31282	.00000	.00000	.00000
-4.000	-.00052	-.00100	.00085	.13686	.20052	.29133	.00000	.00000	.00000
.000	-.00051	-.00098	.00083	.13479	.19750	.28694	.00000	.00000	.00000
4.000	-.00053	-.00102	.00087	.13556	.19662	.28658	.00000	.00000	.00000
8.000	-.00055	-.00105	.00089	.15090	.22109	.32122	.00000	.00000	.00000
GRADIENT	-.00000	-.00000	.00000	-.00016	-.00024	-.00034	.00000	.00000	.00000

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-8.000	-.00052	-.00100	.00084	.14993	.21968	.31917	.00000	.00000	.00000
-4.000	-.00051	-.00096	.00083	.13817	.20245	.29413	.00000	.00000	.00000
.000	-.00050	-.00095	.00081	.13872	.20324	.29529	.00000	.00000	.00000
4.000	-.00051	-.00098	.00083	.13718	.20099	.29201	.00000	.00000	.00000
8.000	-.00052	-.00099	.00084	.15310	.22432	.32592	.00000	.00000	.00000
GRADIENT	-.00000	-.00000	.00000	-.00012	-.00018	-.00027	.00000	.00000	.00000

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-8.000	-.00049	-.00095	.00080	.13716	.20097	.29199	.00000	.00000	.00000
-4.000	-.00051	-.00097	.00082	.14094	.20650	.30002	.00000	.00000	.00000
.000	-.00049	-.00094	.00080	.13917	.20350	.29625	.00000	.00000	.00000
4.000	-.00051	-.00097	.00082	.14394	.21090	.30542	.00000	.00000	.00000
8.000	-.00052	-.00099	.00084	.13745	.20139	.29259	.00000	.00000	.00000
GRADIENT	-.00000	-.00000	.00000	.00038	.00055	.00080	.00000	.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8D12) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA = 12.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = .000 SPDGRK = 85.000  
 BDFLAP = 22.500 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

CY5	CY6	CLM5	CLM6	CAS	CN5	CLM5	CN6	CAS	CLM5	CN5	CLM6	CY6	CYN5	CBL6
.00050	.00082	.00096	.16397	.24024	.34904	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00048	.00079	.00093	.14075	.20623	.29962	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00048	.00078	.00092	.13725	.20110	.29218	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00048	.00078	.00092	.14111	.20675	.30038	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00052	.00085	.00100	.15094	.22116	.32131	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00000	.00000	.00000	.00004	.00006	.00009	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CY5	CY6	CLM5	CLM6	CAS	CN5	CLM5	CN6	CAS	CLM5	CN5	CLM6	CY6	CYN5	CBL6
.00049	.00079	.00093	.09916	.14615	.20457	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00049	.00079	.00093	.09219	.13587	.19018	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00048	.00078	.00092	.10072	.14845	.20779	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00000	.00000	.00000	.00020	.00029	.00040	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CY5	CY6	CLM5	CLM6	CAS	CN5	CLM5	CN6	CAS	CLM5	CN5	CLM6	CY6	CYN5	CBL6
.00047	.00077	.00091	.09742	.14358	.20097	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00047	.00076	.00089	.09207	.13569	.18994	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00048	.00078	.00092	.10171	.14990	.20982	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00000	.00000	.00000	.00054	.00079	.00111	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(GE8D13) ( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPOBRK = 35.000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CNS	CA5	CLM5	CNS	CA5	CLM5	CY6	CYN5	CBL6
BETA									
-4.000	-.00047	-.00089	.00075	.09692	.14284	.19994	.00000	.00000	.00000
.000	-.00044	-.00084	.00072	.09217	.13584	.19014	.00000	.00000	.00000
4.000	-.00045	-.00086	.00073	.09846	.14511	.20312	.00000	.00000	.00000
GRADIENT	.00000	.00000	-.00000	.00019	.00028	.00040	.00000	.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CNS	CA5	CLM5	CNS	CA5	CLM5	CY6	CYN5	CBL6
BETA									
-4.000	-.00047	-.00089	.00076	.09690	.14281	.19989	.00000	.00000	.00000
.000	-.00046	-.00088	.00074	.09311	.13722	.19207	.00000	.00000	.00000
4.000	-.00045	-.00087	.00074	.09805	.14451	.20228	.00000	.00000	.00000
GRADIENT	.00000	.00000	-.00000	.00014	.00021	.00030	.00000	.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CNS	CA5	CLM5	CNS	CA5	CLM5	CY6	CYN5	CBL6
BETA									
-4.000	-.00048	-.00091	.00077	.09841	.14504	.20302	.00000	.00000	.00000
.000	-.00048	-.00091	.00077	.09691	.14283	.19992	.00000	.00000	.00000
4.000	-.00048	-.00091	.00077	.10060	.14826	.20752	.00000	.00000	.00000
GRADIENT	.00000	.00000	-.00000	.00027	.00040	.00056	.00000	.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CNS	CA5	CLM5	CNS	CA5	CLM5	CY6	CYN5	CBL6
BETA									
-4.000	-.00051	-.00097	.00082	.11290	.16640	.23291	.00000	.00000	.00000
.000	-.00051	-.00097	.00082	.10305	.15188	.21259	.00000	.00000	.00000
4.000	-.00051	-.00097	.00083	.11740	.17302	.24218	.00000	.00000	.00000
GRADIENT	.00000	.00000	.00000	.00056	.00083	.00116	.00000	.00000	.00000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8D14) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = .000 SFCBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CY5  
 -.00052  
 -.00050  
 -.00053  
 -.00000

CAS  
 -.00100  
 -.00096  
 -.00101  
 -.00000

CNS  
 -.00052  
 -.00050  
 -.00053  
 -.00000

CLM5  
 .00085  
 .00081  
 .00085  
 .00000

CAG  
 .17833  
 .16525  
 .17968  
 .00017

CNG  
 .12100  
 .11213  
 .12192  
 .00011

CLM6  
 .24962  
 .23131  
 .25151  
 .00024

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00051  
 -.00049  
 -.00052  
 -.00000

CAS  
 -.00097  
 -.00094  
 -.00099  
 -.00000

CLM5  
 .00082  
 .00080  
 .00084  
 .00000

CAG  
 .17639  
 .17146  
 .18036  
 .00050

CLM6  
 .24690  
 .24000  
 .25245  
 .00069

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00048  
 -.00049  
 -.00050  
 -.00000

CAS  
 -.00092  
 -.00094  
 -.00095  
 -.00000

CLM5  
 .00078  
 .00080  
 .00080  
 .00000

CAG  
 .17612  
 .17505  
 .17808  
 .00024

CLM6  
 .24652  
 .24503  
 .24926  
 .00034

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00050  
 -.00050  
 -.00051  
 -.00000

CAS  
 -.00095  
 -.00096  
 -.00097  
 -.00000

CLM5  
 .00091  
 .00082  
 .00083  
 .00000

CAG  
 .17633  
 .17688  
 .18313  
 .00095

CLM6  
 .24692  
 .24759  
 .25634  
 .00119

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00052  
 -.00052  
 -.00052  
 .00000

CAS  
 -.00099  
 -.00099  
 -.00099  
 .00000

CLM5  
 .00084  
 .00084  
 .00084  
 -.00000

CAG  
 .12273  
 .12280  
 .12742  
 .00059

CLM6  
 .25318  
 .25333  
 .26285  
 .00121

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(GE8D15) ( 23 AUG 75 )

## REFERENCE DATA

STEEP = 2690.0000 SQ.FT.  
 XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS	CLMS	CNS	CAS	CLMS	CY6	CYNS	CEL6
.00055	.00106	.13397	.19745	.27638	.00000	.00000	.00000
.00053	.00100	.12810	.18880	.26427	.00000	.00000	.00000
.00055	.00107	.13250	.19528	.27334	.00000	.00000	.00000
.00000	.00000	.00018	.00027	.00038	.00000	.00000	.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS	CLMS	CNS	CAS	CLMS	CY6	CYNS	CEL6
.00052	.00100	.13786	.20317	.28439	.00000	.00000	.00000
.00052	.00099	.13270	.19558	.27376	.00000	.00000	.00000
.00054	.00104	.13508	.19909	.27857	.00000	.00000	.00000
.00000	.00001	.00035	.00051	.00071	.00000	.00000	.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS	CLMS	CNS	CAS	CLMS	CY6	CYNS	CEL6
.00052	.00099	.13970	.20588	.28918	.00000	.00000	.00000
.00053	.00101	.13749	.20253	.28362	.00000	.00000	.00000
.00054	.00103	.13096	.19301	.27016	.00000	.00000	.00000
.00000	.00000	.00109	.00161	.00225	.00000	.00000	.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS	CLMS	CNS	CAS	CLMS	CY6	CYNS	CEL6
.00055	.00105	.13803	.20343	.28475	.00000	.00000	.00000
.00052	.00100	.13787	.20320	.28442	.00000	.00000	.00000
.00054	.00103	.13352	.19678	.27544	.00000	.00000	.00000
.00000	.00000	.00056	.00083	.00116	.00000	.00000	.00000

RN/L = 3.13 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS	CLMS	CNS	CAS	CLMS	CY6	CYNS	CEL6
.00054	.00103	.13623	.20078	.28103	.00000	.00000	.00000
.00054	.00103	.14312	.21092	.29524	.00000	.00000	.00000
.00055	.00105	.13332	.19548	.27502	.00000	.00000	.00000
.00000	.00000	.00036	.00054	.00075	.00000	.00000	.00000

DATE 19 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GEED15) 1 23 AUG 75 )

## REFERENCE DATA

GRP = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 536.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000  
 BDFLAP = .000  
 ELVN-L = .000  
 ELVN-R = .000  
 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA = -4.000	CMS	CAS	CLM5	CNS	CAS	CLM6	CYE	CYN5	CEL5
-4.000	-4.000	.00035	-.00067	.00057	.12039	.17743	.24836	.00000	.00000	.00000
.000	.000	-.00037	-.00070	.00059	.10881	.16036	.22446	.00000	.00000	.00000
4.000	4.000	-.00035	-.00068	.00057	.11698	.17240	.24131	.00000	.00000	.00000
GRADIENT	GRADIENT	-.00000	-.00000	.00000	-.00043	-.00063	-.00088	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA = .000	CMS	CAS	CLM5	CNS	CAS	CLM6	CYE	CYN5	CEL5
.000	.000	-.00035	-.00065	.00056	.11183	.16481	.23053	.00000	.00000	.00000
.000	.000	-.00036	-.00069	.00058	.11183	.16481	.23059	.00000	.00000	.00000
4.000	4.000	-.00034	-.00065	.00055	.10975	.16176	.22641	.00000	.00000	.00000
GRADIENT	GRADIENT	.00000	.00000	-.00000	-.00026	-.00038	-.00053	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA = 4.000	CMS	CAS	CLM5	CNS	CAS	CLM6	CYE	CYN5	CEL5
4.000	4.000	-.00033	-.00062	.00053	.10002	.14741	.20633	.00000	.00000	.00000
.000	.000	-.00032	-.00061	.00052	.10758	.15956	.22194	.00000	.00000	.00000
4.000	4.000	-.00032	-.00062	.00053	.05569	.14102	.19740	.00000	.00000	.00000
GRADIENT	GRADIENT	.00000	.00000	-.00000	-.00054	-.00080	-.00112	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA = 8.000	CMS	CAS	CLM5	CNS	CAS	CLM6	CYE	CYN5	CEL5
8.000	8.000	-.00032	-.00060	.00051	.10314	.15201	.21278	.00000	.00000	.00000
.000	.000	-.00031	-.00060	.00051	.10448	.15398	.21553	.00000	.00000	.00000
4.000	4.000	-.00031	-.00059	.00050	.05510	.14015	.19619	.00000	.00000	.00000
GRADIENT	GRADIENT	.00000	.00000	-.00000	-.00101	-.00143	-.00207	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA = 12.000	CMS	CAS	CLM5	CNS	CAS	CLM6	CYE	CYN5	CEL5
12.000	12.000	-.00034	-.00066	.00056	.10852	.15994	.22388	.00000	.00000	.00000
.000	.000	-.00034	-.00065	.00055	.11273	.16615	.23256	.00000	.00000	.00000
4.000	4.000	-.00036	-.00069	.00058	.10941	.16125	.22571	.00000	.00000	.00000
GRADIENT	GRADIENT	-.00000	-.00000	.00000	.00011	.00016	.00023	.00000	.00000	.00000

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(GE8D17) ( 23 AUG 75 )

REFERENCE DATA

SREF = 2693.000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPDBRK = 35.000  
BDFLAP = .000 ELVN-L = .000  
ELVN-R = .000 PACH = .600

PARAMETRIC DATA

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-8.000  
-4.000  
4.000  
8.000  
GRADIENT

CN5  
-0.0036  
-0.0036  
-0.0033  
-0.0035  
-0.0037  
0.0000

CAS  
-0.0068  
-0.0068  
-0.0064  
-0.0057  
-0.0071  
0.0000

CLM5  
0.0059  
0.0058  
0.0054  
0.0057  
0.0061  
-0.0000

CN6  
0.13594  
0.12904  
0.11980  
0.12115  
0.12673  
-0.00099

CAS  
0.20034  
0.19018  
0.17557  
0.17855  
0.16577  
-0.00145

CLM6  
0.28043  
0.26521  
0.24715  
0.24993  
0.26143  
-0.00234

CY6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

CYN6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

CBL6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
-8.000  
-4.000  
4.000  
8.000  
GRADIENT

CN5  
-0.0035  
-0.0033  
-0.0032  
-0.0035  
-0.0035  
-0.0030

CAS  
-0.0067  
-0.0063  
-0.0062  
-0.0067  
-0.0068  
-0.0001

CLM5  
0.0057  
0.0053  
0.0052  
0.0057  
0.0058  
0.0000

CN6  
0.12781  
0.12159  
0.11651  
0.12092  
0.12315  
-0.00008

CAS  
0.18937  
0.17920  
0.17466  
0.17832  
0.18159  
-0.00012

CLM6  
0.26356  
0.25823  
0.24447  
0.24345  
0.25405  
-0.00017

CY6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

CYN6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

CBL6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

RV/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
-8.000  
-4.000  
4.000  
8.000  
GRADIENT

CN5  
-0.0035  
-0.0030  
-0.0030  
-0.0032  
-0.0034  
-0.0000

CAS  
-0.0066  
-0.0057  
-0.0058  
-0.0051  
-0.0055  
-0.0000

CLM5  
0.0056  
0.0048  
0.0049  
0.0051  
0.0055  
0.0000

CN6  
0.12211  
0.10727  
0.11622  
0.10795  
0.11234  
0.00008

CAS  
0.17997  
0.15819  
0.17129  
0.15910  
0.16357  
0.00013

CLM6  
0.25191  
0.22130  
0.23375  
0.22202  
0.23176  
0.00016

CY6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

CYN6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

CBL6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 6.000

BETA  
-8.000  
-4.000  
4.000  
8.000  
GRADIENT

CN5  
-0.0032  
-0.0031  
-0.0029  
-0.0033  
-0.0034  
-0.0000

CAS  
-0.0061  
-0.0050  
-0.0055  
-0.0063  
-0.0065  
-0.0000

CLM5  
0.0052  
0.0051  
0.0047  
0.0054  
0.0055  
0.0000

CN6  
0.08851  
0.10763  
0.11521  
0.10830  
0.09256  
0.00008

CAS  
0.13045  
0.15863  
0.17540  
0.15961  
0.13542  
0.00012

CLM6  
0.18259  
0.22204  
0.24551  
0.22341  
0.19095  
0.00017

CY6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

CYN6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

CBL6  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000  
0.0000

DATE 02 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-373-1 )

PAGE 540

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(CEED: 11 23 AUG 75 )

REFERENCE DATA

ALPHA = 12.000  
 BETA = 1076.6800 IN. X0  
 XMRP = 1076.6800 IN. X0  
 YMRP = 1076.6800 IN. Y0  
 ZMRP = 1076.6800 IN. Z0  
 SCALE = 1.000

RJDDER =  
 SDFLAP =  
 ELVNR =

CEB =  
 CYB =  
 CLB =

PARAMETRIC DATA

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CLMS	CAS	CNS	CAB	CYS	CYB	CEB
.00033	.00063	.11976	.17651	.00000	.00000	.00000
.00027	.00052	.10116	.14909	.00000	.00000	.00000
.00029	.00055	.11674	.17205	.00000	.00000	.00000
.00029	.00055	.09813	.14482	.00000	.00000	.00000
.00035	.00067	.11277	.16620	.00000	.00000	.00000
.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

ALPHA = 12.000  
 BETA = 1076.6800 IN. X0  
 XMRP = 1076.6800 IN. X0  
 YMRP = 1076.6800 IN. Y0  
 ZMRP = 1076.6800 IN. Z0  
 SCALE = 1.000

RJDDER =  
 SDFLAP =  
 ELVNR =

CEB =  
 CYB =  
 CLB =

PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CLMS	CAS	CNS	CAB	CYS	CYB	CEB
.00048	.00092	.08651	.12505	.00000	.00000	.00000
.00048	.00091	.08453	.12223	.00000	.00000	.00000
.00048	.00092	.08591	.12567	.00000	.00000	.00000
.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00000	.00000	.00000	.00000	.00000	.00000	.00000

ALPHA = 12.000

BETA =

XMRP =

YMRP =

ZMRP =

SCALE =

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

CLMS	CAS	CNS	CAB	CYS	CYB	CEB
.00047	.00090	.08609	.12449	.00000	.00000	.00000
.00045	.00087	.08447	.11781	.00000	.00000	.00000
.00047	.00090	.08717	.12604	.00000	.00000	.00000
.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00000	.00000	.00000	.00000	.00000	.00000	.00000
.00000	.00000	.00000	.00000	.00000	.00000	.00000

ALPHA = 12.000

BETA =

XMRP =

YMRP =

ZMRP =

SCALE =



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(0E8018) ( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BOFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -0.0004  
 -0.0004  
 -0.0004  
 -0.0004  
 .0000

CA5  
 -0.00087  
 -0.00084  
 -0.00087  
 .00000

CN5  
 -0.0004  
 -0.0004  
 -0.0004  
 -0.0004  
 .0000

CA5  
 -0.00087  
 -0.00084  
 -0.00087  
 .00000

CLM5  
 .00074  
 .00071  
 .00074  
 -0.00000

CN6  
 .08924  
 .08392  
 .08797  
 -.00016

CA6  
 .12905  
 .12135  
 .12721  
 -.00023

CLM6  
 .18347  
 .17252  
 .18085  
 -.00033

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000

CBLS  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -0.00045  
 -0.00044  
 -0.00046  
 -0.00000

CA5  
 -0.00086  
 -0.00085  
 -0.00088  
 -0.00000

CLM5  
 .00073  
 .00072  
 .00075  
 .00000

CN6  
 .09187  
 .08579  
 .09018  
 -.00021

CA6  
 .13285  
 .12406  
 .13040  
 -.00031

CLM6  
 .18897  
 .17637  
 .18539  
 -.00044

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000

CBLS  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -0.00045  
 -0.00047  
 -0.00047  
 -0.00000

CA5  
 -0.00086  
 -0.00090  
 -0.00091  
 -0.00001

CLM5  
 .00073  
 .00076  
 .00077  
 .00000

CN6  
 .09029  
 .09054  
 .09201  
 .00022

CA6  
 .13056  
 .13093  
 .13305  
 .00031

CLM6  
 .18562  
 .18614  
 .18915  
 .00044

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000

CBLS  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -0.00047  
 -0.00051  
 -0.00050  
 -0.00000

CA5  
 -0.00091  
 -0.00097  
 -0.00096  
 -0.00001

CLM5  
 .00077  
 .00082  
 .00082  
 .00001

CN6  
 .09974  
 .09747  
 .09806  
 -.00021

CA6  
 .14422  
 .14094  
 .14180  
 -.00030

CLM6  
 .20504  
 .20038  
 .20160  
 -.00043

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000

CBLS  
 .00000  
 .00000  
 .00000  
 .00000

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8D19) ( 23 AUG 75 )

## REFERENCE DATA

SHEET 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LIFT = 474.9000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SDBRK = .000  
 BDFLAP = -11.700 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

.00000

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RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

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RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( 068020 ) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

RUDDER = .000  
 BOFLAP = -11.700  
 ELVN-R = .000  
 MACH = 1.100  
 SPOBRK = .000  
 ELVN-L = .000

## PARAMETRIC DATA

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA5  
 -0.0053  
 -0.0051  
 -0.0053  
 .0000  
 CN5  
 .00086  
 .00083  
 .00085  
 -.00030  
 CLM5  
 .11113  
 .10475  
 .10811  
 -.00038  
 CA6  
 .16069  
 .15147  
 .15632  
 -.00055  
 CLM6  
 .22846  
 .21535  
 .22224  
 -.00078  
 CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA5  
 -.00050  
 -.00050  
 -.00050  
 -.00000  
 CN5  
 .00081  
 .00080  
 .00081  
 .00000  
 CLM5  
 .11275  
 .10727  
 .10897  
 -.00047  
 CA6  
 .16304  
 .15511  
 .15757  
 -.00068  
 CLM6  
 .23180  
 .22052  
 .22402  
 -.00097  
 CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA5  
 -.00093  
 -.00094  
 -.00093  
 -.00000  
 CN5  
 .00079  
 .00080  
 .00079  
 .00000  
 CLM5  
 .10958  
 .11122  
 .10662  
 -.00037  
 CA6  
 .15845  
 .16083  
 .15417  
 -.00053  
 CLM6  
 .22527  
 .22665  
 .21919  
 -.00076  
 CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA5  
 -.00094  
 -.00094  
 -.00095  
 -.00000  
 CN5  
 .00080  
 .00080  
 .00081  
 .00000  
 CLM5  
 .10758  
 .11586  
 .10893  
 .00017  
 CA6  
 .15555  
 .16754  
 .15751  
 .00024  
 CLM6  
 .22115  
 .23819  
 .22333  
 .00035  
 CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CA5  
 -.00099  
 -.00099  
 -.00099  
 .00000  
 CN5  
 .00084  
 .00084  
 .00084  
 -.00000  
 CLM5  
 .11019  
 .12076  
 .10943  
 -.00010  
 CA6  
 .15933  
 .17461  
 .15823  
 -.00014  
 CLM6  
 .22652  
 .24825  
 .22495  
 -.00020  
 CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 CBL6  
 .00000  
 .00000  
 .00000  
 .00000

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

REFERENCE DATA  
SPR = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = .000 SPCBRK = .000  
LREF = 474.8000 IN. YMRP = .0000 IN. YO BOFLAP = -11.700 ELVN-L = .000  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO ELVN-R = .000 MACH = .900  
SCALE = .0300

PARAMETRIC DATA

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = -4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA = -4.000	-0.0029	-0.0055	.00046	.08729	.12623	.17946	.00000	.00000	.00000
GRADIENT = .000	-0.0028	-0.0054	.00046	.08718	.12607	.17923	.00000	.00000	.00000
	-0.0031	-0.0059	.00050	.08595	.12428	.17669	.00000	.00000	.00000
	-0.0000	-0.0001	.00001	-.00017	-.00024	-.00035	.00000	.00000	.00000
RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = .000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL5
BETA = -4.000	-0.0029	-0.0055	.00047	.07488	.10827	.15393	.00000	.00000	.00000
GRADIENT = .000	-0.0029	-0.0055	.00046	.08497	.12287	.17469	.00000	.00000	.00000
	-0.0027	-0.0052	.00044	.07818	.11304	.16071	.00000	.00000	.00000
	.00000	.00000	-.00000	.00041	.00050	.00065	.00000	.00000	.00000
RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL5
BETA = -4.000	-0.0028	-0.0054	.00046	.06900	.09978	.14185	.00000	.00000	.00000
GRADIENT = .000	-0.0026	-0.0050	.00042	.07950	.11495	.16343	.00000	.00000	.00000
	-0.0028	-0.0054	.00046	.07759	.11220	.15951	.00000	.00000	.00000
	.00000	.00000	-.00000	.00107	.00155	.00221	.00000	.00000	.00000
RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 8.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA = -4.000	-0.0027	-0.0052	.00044	.07358	.10639	.15126	.00000	.00000	.00000
GRADIENT = .000	-0.0026	-0.0050	.00042	.07507	.10711	.15228	.00000	.00000	.00000
	-0.0027	-0.0051	.00044	.07021	.10152	.14433	.00000	.00000	.00000
	.00000	.00000	-.00000	-.00042	-.00061	-.00087	.00000	.00000	.00000
RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 12.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL5
BETA = -4.000	-0.0029	-0.0056	.00047	.08293	.11992	.17050	.00000	.00000	.00000
GRADIENT = .000	-0.0032	-0.0061	.00052	.09096	.13153	.18700	.00000	.00000	.00000
	-0.0031	-0.0058	.00050	.08640	.12493	.17762	.00000	.00000	.00000
	-0.0000	-0.0000	.00000	.00043	.00063	.00089	.00000	.00000	.00000

REFERENCE DATA

SPEF = 2690.0000 SQ.FT.

LREF = 474.8000 IN.

BREF = 936.6800 IN.

SCALE = .0300

PARAMETRIC DATA

RUDDER = .000

SPOBRK = .000

BDFLAP = -11.700

ELVN-L = .000

ELVN-R = .000

MACH = .600

ALPHA = -4.000

BETA

CNS

CA5

CLM5

CN6

CA6

CLM6

CY6

CYN6

CBL6

-8.000

-.00051

.00044

.09092

.13148

.18692

.00000

.00000

.00000

-4.000

-.00048

.00041

.06923

.12903

.18344

.00000

.00000

.00000

.000

-.00048

.00046

.07762

.11224

.15957

.00000

.00000

.00000

4.000

-.00054

.00050

.08068

.11665

.16595

.00000

.00000

.00000

8.000

-.00059

.00050

.08436

.12199

.17343

.00000

.00000

.00000

GRADIENT

-.00000

.00001

.00001

-.00107

-.00155

-.00220

.00000

.00000

.00000

RN/L = 4.85

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

CNS

CA5

CLM5

CN6

CA6

CLM6

CY6

CYN6

CBL6

-8.000

-.00052

.00044

.09040

.13072

.18595

.00000

.00000

.00000

-4.000

-.00050

.00042

.08465

.12240

.17402

.00000

.00000

.00000

.000

-.00048

.00041

.08211

.11873

.16880

.00000

.00000

.00000

4.000

-.00051

.00044

.08359

.12087

.17184

.00000

.00000

.00000

8.000

-.00055

.00047

.08521

.12322

.17518

.00000

.00000

.00000

GRADIENT

-.00000

.00000

.00000

-.00013

-.00019

-.00027

.00000

.00000

.00000

RN/L = 4.86

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

CNS

CA5

CLM5

CN6

CA6

CLM6

CY6

CYN6

CBL6

-8.000

-.00050

.00043

.08409

.12159

.17287

.00000

.00000

.00000

-4.000

-.00046

.00041

.07855

.11358

.16148

.00000

.00000

.00000

.000

-.00047

.00040

.07822

.11311

.16081

.00000

.00000

.00000

4.000

-.00052

.00044

.07909

.11437

.16260

.00000

.00000

.00000

8.000

-.00054

.00046

.08375

.12111

.17218

.00000

.00000

.00000

GRADIENT

-.00000

.00000

.00000

.00007

.00010

.00014

.00000

.00000

.00000

RN/L = 4.87

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

CNS

CA5

CLM5

CN6

CA6

CLM6

CY6

CYN6

CBL6

-8.000

-.00048

.00041

.07253

.10488

.14911

.00000

.00000

.00000

-4.000

-.00048

.00041

.07691

.11121

.15810

.00000

.00000

.00000

.000

-.00045

.00038

.08289

.11985

.17040

.00000

.00000

.00000

4.000

-.00055

.00047

.08083

.11688

.16517

.00000

.00000

.00000

8.000

-.00053

.00045

.07894

.11400

.16207

.00000

.00000

.00000

GRADIENT

-.00000

.00001

.00001

.00049

.00071

.00101

.00000

.00000

.00000

RN/L = 4.87

GRADIENT INTERVAL = -5.00/ 5.00

DATE 11 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

( GE8D22 ) ( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

RUDDER = .000 SPDRK = .000  
BOFLAP = -11.700 ELVN-L = .000  
ELVN-R = .000 MACH = .600

RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0027	-0.0051	.00043	.08301	.12003	.17065	.00000	.00000	.00000
-8.000	-0.0021	-0.0041	.00035	.06778	.09801	.13935	.00000	.00000	.00000
-4.000	-0.0024	-0.0046	.00039	.07970	.11525	.16385	.00000	.00000	.00000
4.000	-0.0025	-0.0047	.00040	.07073	.10228	.14541	.00000	.00000	.00000
8.000	-0.0031	-0.0059	.00050	.08490	.12277	.17454	.00000	.00000	.00000
GRADIENT	-0.0000	-0.0001	.00001	.00037	.00053	.00076	.00000	.00000	.00000

( GE8D23 ) ( 23 AUG 75 )

CA148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

REFERENCE DATA

SREF = 2630.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6000 IN.  
SCALE = .0300

RUDDER = .000 SPDRK = .000  
BOFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = 1.400

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0048	-0.0093	.00079	.08679	.12550	.17842	.00000	.00000	.00000
-4.000	-0.0048	-0.0091	.00077	.08426	.12184	.17321	.00000	.00000	.00000
.000	-0.0049	-0.0093	.00079	.08764	.12672	.18016	.00000	.00000	.00000
4.000	-0.0000	-0.0000	.00000	.00011	.00015	.00022	.00000	.00000	.00000
GRADIENT	-0.0000	-0.0000	.00000	.00011	.00015	.00022	.00000	.00000	.00000

ALPHA = .000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0047	-0.0091	.00077	.08523	.12469	.17727	.00000	.00000	.00000
-4.000	-0.0045	-0.0089	.00075	.08294	.11993	.17051	.00000	.00000	.00000
.000	-0.0048	-0.0091	.00077	.08505	.12731	.18100	.00000	.00000	.00000
4.000	-0.0000	-0.0000	.00000	.00023	.00033	.00047	.00000	.00000	.00000
GRADIENT	-0.0000	-0.0000	.00000	.00023	.00033	.00047	.00000	.00000	.00000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8D23) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8300 IN. YMRP = .0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

RUDDER = .000 SPOBRK = .000  
 BDFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

## PARAMETRIC DATA

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CLM5  
 .00076  
 .00072  
 .00074  
 -.00000

CA6  
 .13044  
 .12271  
 .12904  
 -.00017

CN6  
 .09021  
 .09486  
 .08924  
 -.00012

CLM6  
 .18545  
 .17446  
 .18346  
 -.00025

CA5  
 -.00089  
 -.00085  
 -.00087  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CLM5  
 .00076  
 .00072  
 .00074  
 -.00000

CA6  
 .13639  
 .12608  
 .13201  
 -.00055

CN6  
 .09432  
 .08719  
 .09130  
 -.00038

CLM6  
 .19390  
 .17924  
 .18769  
 -.00078

CA5  
 -.00090  
 -.00087  
 -.00086  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CLM5  
 .00076  
 .00072  
 .00074  
 -.00000

CA6  
 .13604  
 .13315  
 .13443  
 -.00020

CN6  
 .09408  
 .09208  
 .09297  
 -.00014

CLM6  
 .19341  
 .18929  
 .19112  
 -.00029

CA5  
 -.00090  
 -.00091  
 -.00091  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

CN5  
 -.00047  
 -.00044  
 -.00045  
 .00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CY6  
 .00000  
 .00000  
 .00000  
 .00000

CLM5  
 .00082  
 .00083  
 .00083  
 .00000

CA6  
 .14883  
 .14281  
 .14486  
 -.00050

CN6  
 .10292  
 .09876  
 .10018  
 -.00034

CLM6  
 .21159  
 .20303  
 .20595  
 -.00070

CA5  
 -.00096  
 -.00098  
 -.00097  
 .00000

CN5  
 -.00050  
 -.00051  
 -.00051  
 .00000

CN5  
 -.00050  
 -.00051  
 -.00051  
 .00000

CN5  
 -.00050  
 -.00051  
 -.00051  
 .00000

CN5  
 -.00050  
 -.00051  
 -.00051  
 .00000

CN5  
 -.00050  
 -.00051  
 -.00051  
 .00000

DATE 09 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 648

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

( 6E8D24 ) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRPF = 950.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00052  
 -.00050  
 -.00052  
 -.00050  
 .00000

CA5  
 -.00099  
 -.00096  
 -.00099  
 -.00099  
 .00000

CLM5  
 .00384  
 .00681  
 .00684  
 .00684  
 -.00000

CN6  
 .09769  
 .09195  
 .09758  
 .09758  
 -.00001

CA6  
 .14127  
 .13295  
 .14110  
 .14110  
 -.00002

CLM6  
 .20084  
 .18902  
 .20650  
 .20650  
 -.00003

CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00050  
 -.00048  
 -.00050  
 -.00050  
 -.00000

CA5  
 -.00096  
 -.00093  
 -.00096  
 -.00096  
 .00000

CLM5  
 .00081  
 .00378  
 .00081  
 .00081  
 .00000

CN6  
 .09966  
 .09370  
 .09952  
 .09952  
 -.00002

CA6  
 .14411  
 .13549  
 .14391  
 .14391  
 -.00002

CLM6  
 .20488  
 .19263  
 .20460  
 .20460  
 -.00003

CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00048  
 -.00049  
 -.00048  
 -.00048  
 -.00000

CA5  
 -.00092  
 -.00094  
 -.00092  
 -.00092  
 .00000

CLM5  
 .00078  
 .00080  
 .00078  
 .00078  
 .00000

CN6  
 .10090  
 .09842  
 .09857  
 .09857  
 -.00029

CA6  
 .14590  
 .14232  
 .14253  
 .14253  
 -.00042

CLM6  
 .20742  
 .20234  
 .20264  
 .20264  
 -.00050

CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00049  
 -.00049  
 -.00049  
 -.00049  
 .00000

CA5  
 -.00094  
 -.00095  
 -.00094  
 -.00094  
 .00000

CLM5  
 .00080  
 .00080  
 .00080  
 .00080  
 -.00000

CN6  
 .10377  
 .10215  
 .10222  
 .10222  
 -.00019

CA6  
 .15005  
 .14772  
 .14780  
 .14780  
 -.00028

CLM6  
 .21333  
 .21001  
 .21013  
 .21013  
 -.00040

CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00051  
 -.00052  
 -.00051  
 -.00051  
 -.00000

CA5  
 -.00097  
 -.00099  
 -.00097  
 -.00097  
 .00000

CLM5  
 .00082  
 .00084  
 .00082  
 .00082  
 .00000

CN6  
 .10677  
 .10676  
 .10581  
 .10581  
 -.00012

CA6  
 .15440  
 .15438  
 .15300  
 .15300  
 -.00017

CLM6  
 .21951  
 .21948  
 .21753  
 .21753  
 -.00025

CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CYN6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000



DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

**PAGE 649**

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I (GE8025) ( 23 AUG 75 )

## REFERENCE DATA

```

SPRF = 2690.0000 SQ.FT.      XMRP = 1076.6900 IN. X0
LSEF = 474.6000 IN.         YMRP = .0000 IN. Y0
SEEF = 936.6500 IN.         ZMRP = 375.0000 IN. Z0
SCALE = .0000

```

### PARAMETRIC DATA

RUDDER	=	.000	SPDBRK	=	.000
BDFLAP	=	.000	ELVN-L	=	.000
ELVN-R	=	.000	MACH	=	1.100

RN/L =	3.19	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA =	-4.000
BETA	-4.000
DELTA	-4.000
Epsilon	-4.000

CY6	CYN6	CBL6
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000

RN/L =	3.18	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA =

	CY5	CYN5	CELS
1	.00000	.00000	.00000
2	.00000	.00000	.00000
3	.00000	.00000	.00000
4	.00000	.00000	.00000
5	.00000	.00000	.00000

RMSE =	3.18	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = 4.000  
BETA  
-4.500  
4.000  
4.000  
GRADIENT

CY6	CYN6	CBLE
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000

$RN/L = 3.18$ 
 $GRADIENT\ INTERVAL = -5.00/5.00$

A\_PMA = 8.000  
BETA  
-5.000  
1.000  
1.000  
1.000  
INTEGRALS

	CY6	CYN6	CEL6
1	.00000	.00000	.00000
2	.00000	.00000	.00000
3	.00000	.00000	.00000
4	.00000	.00000	.00000
5	.00000	.00000	.00000

RN/L =	3.18	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

ALPHA = 12.000  
BETA  
-1.000  
4.000  
GRADIENT

CY6	CYN5	CBL6
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000
.00000	.00000	.00000

DATE 29 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(CEED26) ( 23 AUG 76

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

REFERENCE DATA

SPEF = 2330.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LPEF = 74.8000 IN. YMRP = .0000 IN. YO  
BPEF = 936.6500 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA  
RUDDER = .000 SPOBRK = .000  
BOFLAP = .000 ELVN-L = .000  
ELVN-R = .000 MACH = .000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CAS	CNS	CLM5	CAS	CNS	CAS	CNS	CLM6	CY6	CY5	CEL5
BETA											
-4.000	-0.00058	.00049	.00049	.00058	.00049	.00058	.00049	.00049	.00000	.00000	.00000
.000	-0.00051	.00051	.00051	.00051	.00051	.00051	.00051	.00051	.00000	.00000	.00000
.000	-0.00059	.00050	.00050	.00059	.00050	.00059	.00050	.00050	.00000	.00000	.00000
.000	-0.00050	.00050	.00050	.00050	.00050	.00050	.00050	.00050	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CAS	CNS	CLM5	CAS	CNS	CAS	CNS	CLM6	CY6	CY5	CEL5
BETA											
.000	-0.00057	.00049	.00049	.00057	.00049	.00057	.00049	.00049	.00000	.00000	.00000
.000	-0.00054	.00046	.00046	.00054	.00046	.00054	.00046	.00046	.00000	.00000	.00000
.000	-0.00054	.00046	.00046	.00054	.00046	.00054	.00046	.00046	.00000	.00000	.00000
.000	-0.00054	.00046	.00046	.00054	.00046	.00054	.00046	.00046	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CAS	CNS	CLM5	CAS	CNS	CAS	CNS	CLM6	CY6	CY5	CEL5
BETA											
-4.000	-0.00055	.00047	.00047	.00055	.00047	.00055	.00047	.00047	.00000	.00000	.00000
.000	-0.00053	.00045	.00045	.00053	.00045	.00053	.00045	.00045	.00000	.00000	.00000
.000	-0.00052	.00044	.00044	.00052	.00044	.00052	.00044	.00044	.00000	.00000	.00000
.000	-0.00050	.00040	.00040	.00050	.00040	.00050	.00040	.00040	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CAS	CNS	CLM5	CAS	CNS	CAS	CNS	CLM6	CY6	CY5	CEL5
BETA											
-4.000	-0.00053	.00045	.00045	.00053	.00045	.00053	.00045	.00045	.00000	.00000	.00000
.000	-0.00051	.00043	.00043	.00051	.00043	.00051	.00043	.00043	.00000	.00000	.00000
.000	-0.00053	.00045	.00045	.00053	.00045	.00053	.00045	.00045	.00000	.00000	.00000
.000	-0.00050	.00040	.00040	.00050	.00040	.00050	.00040	.00040	.00000	.00000	.00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CAS	CNS	CLM5	CAS	CNS	CAS	CNS	CLM6	CY6	CY5	CEL5
BETA											
-4.000	-0.00056	.00048	.00048	.00056	.00048	.00056	.00048	.00048	.00000	.00000	.00000
.000	-0.00051	.00052	.00052	.00051	.00052	.00051	.00052	.00052	.00000	.00000	.00000
.000	-0.00050	.00051	.00051	.00050	.00051	.00050	.00051	.00051	.00000	.00000	.00000
.000	-0.00050	.00050	.00050	.00050	.00050	.00050	.00050	.00050	.00000	.00000	.00000

TRANSLATED FROM DATA - 0A148 ( AMES 11-073-1 )

(GE8027) ( 23 AUG 75 )

001108 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

## PARAMETRIC DATA

REFERENCE DATA

RUDDER =	.000	SPDRK =	.000
BOFLAP =	.000	ELVN-L =	.000
ELVN-R =	.000	MACH =	600

SPF	=	2590.0000	50.FT.	XPRP	=	1076.6800	IN.	XO
LOG	=	47.8000	IN.	YPRP	=	.0000	IN.	YO
REF	=	936.6500	IN.	ZPRP	=	375.0000	IN.	ZO
SCALE	=	.0300						

PN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RI/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

FOUL = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

AVL = 4.84 GRADIENT INTERVAL = -5.00/ 5.03

ALPHA	B.000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CBL5
6.14	-0.029	-0.053	-0.045	0.0723		0.1167	0.15876	0.0000	0.0000
6.1	-0.027	-0.051	-0.043	0.0786		0.12704	0.18062	0.0000	0.0000
6.05	-0.025	-0.048	-0.040	0.0840		0.12176	0.17310	0.0000	0.0000
6.0	-0.023	-0.046	-0.038	0.0897		0.12446	0.17534	0.0000	0.0000
5.95	-0.021	-0.044	-0.036	0.0954		0.11720	0.16562	0.0000	0.0000
5.9	-0.019	-0.042	-0.034	0.1015		0.10932	0.15646	0.0000	0.0000
5.85	-0.017	-0.040	-0.032	0.1072		0.10022	0.14746	0.0000	0.0000
5.8	-0.015	-0.038	-0.030	0.1130		0.09102	0.13862	0.0000	0.0000
5.75	-0.013	-0.036	-0.028	0.1187		0.08182	0.12982	0.0000	0.0000
5.7	-0.011	-0.034	-0.026	0.1244		0.07262	0.12102	0.0000	0.0000
5.65	-0.009	-0.032	-0.024	0.1301		0.06342	0.11222	0.0000	0.0000
5.6	-0.007	-0.030	-0.022	0.1358		0.05422	0.10342	0.0000	0.0000
5.55	-0.005	-0.028	-0.020	0.1415		0.04502	0.09462	0.0000	0.0000
5.5	-0.003	-0.026	-0.018	0.1472		0.03582	0.08582	0.0000	0.0000
5.45	-0.001	-0.024	-0.016	0.1529		0.02662	0.07702	0.0000	0.0000
5.4	0.000	-0.022	-0.014	0.1586		0.01742	0.06822	0.0000	0.0000
5.35	0.000	-0.020	-0.012	0.1643		0.00822	0.05942	0.0000	0.0000
5.3	0.000	-0.018	-0.010	0.1700		0.0000	0.05062	0.0000	0.0000
5.25	0.000	-0.016	-0.008	0.1757		0.0000	0.04182	0.0000	0.0000
5.2	0.000	-0.014	-0.006	0.1814		0.0000	0.03302	0.0000	0.0000
5.15	0.000	-0.012	-0.004	0.1871		0.0000	0.02422	0.0000	0.0000
5.1	0.000	-0.010	-0.002	0.1928		0.0000	0.01542	0.0000	0.0000
5.05	0.000	-0.008	0.000	0.1985		0.0000	0.00662	0.0000	0.0000
5.0	0.000	-0.006	0.000	0.2042		0.0000	0.0000	0.0000	0.0000
4.95	0.000	-0.004	0.000	0.2099		0.0000	0.0000	0.0000	0.0000
4.9	0.000	-0.002	0.000	0.2156		0.0000	0.0000	0.0000	0.0000
4.85	0.000	0.000	0.000	0.2213		0.0000	0.0000	0.0000	0.0000
4.8	0.000	0.000	0.000	0.2270		0.0000	0.0000	0.0000	0.0000
4.75	0.000	0.000	0.000	0.2327		0.0000	0.0000	0.0000	0.0000
4.7	0.000	0.000	0.000	0.2384		0.0000	0.0000	0.0000	0.0000
4.65	0.000	0.000	0.000	0.2441		0.0000	0.0000	0.0000	0.0000
4.6	0.000	0.000	0.000	0.2498		0.0000	0.0000	0.0000	0.0000
4.55	0.000	0.000	0.000	0.2555		0.0000	0.0000	0.0000	0.0000
4.5	0.000	0.000	0.000	0.2612		0.0000	0.0000	0.0000	0.0000
4.45	0.000	0.000	0.000	0.2669					

DATE 19 MAY 76

TABULATED FORCE DATA - CA148 (AMES 11-073-1)

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CA148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

REFERENCE DATA

SPRF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 YMRP = 77.8000 IN. YMRP = .0000 IN. YO  
 ZMRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = 0.000

ALPHA = 12.000  
 GRADIENT INTERVAL = -5.00/ 5.00

CA5	CA6	CN5	CLM5	CN6	CLM6	CY5	CY6	CBL5	CBL6
.00027	.00052	.00044	.00039	.08339	.12059	.00000	.00000	.00000	.00000
.00023	.00045	.00039	.00039	.07842	.11340	.00000	.00000	.00000	.00000
.00025	.00047	.00040	.00040	.08899	.12854	.00000	.00000	.00000	.00000
.00025	.00046	.00040	.00040	.07697	.11130	.00000	.00000	.00000	.00000
.00027	.00043	.00045	.00045	.08712	.12597	.00000	.00000	.00000	.00000
.00026	.00040	.00040	.00040	.08018	.120026	.00000	.00000	.00000	.00000
.00027	.00040	.00040	.00040	.08018	.120026	.00000	.00000	.00000	.00000

PARAMETRIC DATA

RUDDER = .000 SPD BRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

(GE9027) (23 AUG 75)

REFERENCE DATA

SPRF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 YMRP = 77.8000 IN. YMRP = .0000 IN. YO  
 ZMRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = 0.000

ALPHA = 12.000  
 GRADIENT INTERVAL = -5.00/ 5.00

CA5	CA6	CN5	CLM5	CN6	CLM6	CY5	CY6	CBL5	CBL6
.00036	.00082	.00082	.00082	.09768	.14402	.00213	.00213	.00115	.00115
.00036	.00082	.00082	.00082	.09739	.14360	.00213	.00213	.00114	.00114
.00036	.00082	.00082	.00082	.09869	.14360	.00215	.00215	.00115	.00115
.00036	.00082	.00082	.00082	.00013	.00019	.00000	.00000	.00000	.00000

PARAMETRIC DATA

RUDDER = -10.000 SPD BRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

(GE9028) (23 AUG 75)

ALPHA = 12.000  
 GRADIENT INTERVAL = -5.00/ 5.00

CA5	CA6	CN5	CLM5	CN6	CLM6	CY5	CY6	CBL5	CBL6
.00094	.00090	.00090	.00090	.07582	.14127	.00209	.00209	.00112	.00112
.00096	.00092	.00092	.00092	.07537	.14357	.00213	.00213	.00114	.00114
.00096	.00092	.00092	.00092	.07537	.14357	.00213	.00213	.00114	.00114
.00096	.00092	.00092	.00092	.00069	.00132	.00000	.00000	.00000	.00000

CA148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

REFERENCE DATA

SPRF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 YMRP = 77.8000 IN. YMRP = .0000 IN. YO  
 ZMRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = 0.000

ALPHA = 12.000  
 GRADIENT INTERVAL = -5.00/ 5.00

CA5	CA6	CN5	CLM5	CN6	CLM6	CY5	CY6	CBL5	CBL6
.00027	.00052	.00044	.00039	.08339	.12059	.00000	.00000	.00000	.00000
.00023	.00045	.00039	.00039	.07842	.11340	.00000	.00000	.00000	.00000
.00025	.00047	.00040	.00040	.08899	.12854	.00000	.00000	.00000	.00000
.00025	.00046	.00040	.00040	.07697	.11130	.00000	.00000	.00000	.00000
.00027	.00043	.00045	.00045	.08712	.12597	.00000	.00000	.00000	.00000
.00026	.00040	.00040	.00040	.08018	.120026	.00000	.00000	.00000	.00000
.00027	.00040	.00040	.00040	.08018	.120026	.00000	.00000	.00000	.00000

PARAMETRIC DATA

RUDDER = .000 SPD BRK = .000  
 BOFLAP = .000 ELVN-L = .000  
 ELVN-R = .000 MACH = .600

(GE9027) (23 AUG 75)

REFERENCE DATA

SPRF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 YMRP = 77.8000 IN. YMRP = .0000 IN. YO  
 ZMRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = 0.000

ALPHA = 12.000  
 GRADIENT INTERVAL = -5.00/ 5.00

CA5	CA6	CN5	CLM5	CN6	CLM6	CY5	CY6	CBL5	CBL6
.00036	.00082	.00082	.00082	.09768	.14402	.00213	.00213	.00115	.00115
.00036	.00082	.00082	.00082	.09739	.14360	.00213	.00213	.00114	.00114
.00036	.00082	.00082	.00082	.09869	.14360	.00215	.00215	.00115	.00115
.00036	.00082	.00082	.00082	.00013	.00019	.00000	.00000	.00000	.00000

PARAMETRIC DATA

RUDDER = -10.000 SPD BRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = .000 MACH = 1.400

(GE9028) (23 AUG 75)

ALPHA = 12.000  
 GRADIENT INTERVAL = -5.00/ 5.00

CA5	CA6	CN5	CLM5	CN6	CLM6	CY5	CY6	CBL5	CBL6
.00094	.00090	.00090	.00090	.07582	.14127	.00209	.00209	.00112	.00112
.00096	.00092	.00092	.00092	.07537	.14357	.00213	.00213	.00114	.00114
.00096	.00092	.00092	.00092	.07537	.14357	.00213	.00213	.00114	.00114
.00096	.00092	.00092	.00092	.00069	.00132	.00000	.00000	.00000	.00000

DATE 18 MAY 76

TABULATED FORCE DATA - 0A148 (AIES 11-073-1)

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0A148 - 1-0 A/B C/R VERTICAL T. BASE INCREMENTS 1 (GEBD28) 23 AUG 75

## REFERENCE DATA

TRF = 263.000 SQ.FT. XMRP = 1076.6900 IN. X0  
 LREF = 474.600 IN. YMRP = 0000 IN. Y0  
 BREF = 336.600 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0000

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 35.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = 1.400

P-V/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	C/S	CAS	CLM5	CMB	C/S	CLM6	CY6	CYN6	CEL6
BETA									
-4.000	-00049	-0103+	.00079	.09372	.14703	.20582	.00218	-.00117	.00072
0.000	-00049	-00033	.00079	.09371	.14700	.20578	.00218	-.00117	.00072
4.000	-00051	-00038	.00083	.10335	.14795	.20712	.00219	-.00118	.00073
GRADIENT	-00000	-00001	.00001	.00008	.00012	.00016	.00000	-.00000	.00000

P-V/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	C/S	CAS	CLM5	CMB	CAS	CLM6	CY6	CYN6	CEL6
BETA									
-4.000	-00049	-0003+	.00080	.10356	.15269	.21375	.00226	-.00122	.00075
0.000	-00049	-0003+	.00080	.10333	.14437	.20293	.00215	-.00115	.00071
4.000	-00051	-00039	.00083	.10339	.14889	.20643	.00220	-.00113	.00073
GRADIENT	-00000	-00000	.00000	-.00032	-.00047	-.00066	-.00001	.00000	-.00000

P-V/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	C/S	CAS	CLM5	CMB	CAS	CLM6	CY6	CYN6	CEL6
BETA									
-4.000	-00051	-00097	.00082	.10474	.15442	.21617	.00229	-.00123	.00076
0.000	-00051	-00097	.00083	.10052	.14621	.20747	.00219	-.00118	.00073
4.000	-00052	-00100	.00085	.10173	.14938	.20995	.00222	-.00119	.00074
GRADIENT	-00000	-00000	.00000	-.00038	-.00056	-.00078	-.00001	.00000	-.00000

P-V/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	C/S	CAS	CLM5	CMB	CAS	CLM6	CY6	CYN6	CEL6
BETA									
-4.000	-00053	-00102	.00085	.10921	.16101	.22539	.00230	-.00128	.00079
0.000	-00052	-00100	.00085	.10230	.15084	.21114	.00223	-.00120	.00074
4.000	-00054	-00103	.00087	.10676	.15741	.22034	.00233	-.00125	.00077
GRADIENT	-00000	-00000	.00000	-.00031	-.00045	-.00063	-.00001	.00000	-.00000



DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(GE8030) ( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = -10.000 SPDBRK = 35.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = 10.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO ELVN-R = .000 MACH = 1.100  
 SCALE = .0300

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-0.0060	-0.0114	.00097	.1463	.21324	.29850	.00316	-0.0170	.00105
.000	-0.0062	-0.0118	.00100	.14277	.21050	.29466	.00312	-0.0168	.00103
4.000	-0.0067	-0.0127	.00108	.14319	.21112	.29554	.00313	-0.0168	.00104
GRADIENT	-0.0001	-0.0002	.00001	-0.0018	-0.0026	-0.0037	-0.0000	.00000	-0.0000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-0.0059	-0.0113	.00096	.14815	.21843	.30577	.00323	-0.0174	.00107
.000	-0.0060	-0.0115	.00098	.13806	.20356	.28495	.00301	-0.0162	.00100
4.000	-0.0063	-0.0121	.00103	.13957	.20577	.28805	.00305	-0.0164	.00101
GRADIENT	-0.0000	-0.0001	.00001	-0.0107	-0.0158	-0.0222	-0.0002	.00001	-0.0001

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-0.0057	-0.0109	.00093	.14391	.21218	.29702	.00314	-0.0169	.00104
.000	-0.0061	-0.0116	.00098	.13544	.19368	.27953	.00296	-0.0159	.00098
4.000	-0.0062	-0.0118	.00100	.13971	.20598	.28834	.00305	-0.0164	.00101
GRADIENT	-0.0001	-0.0001	.00001	-0.0053	-0.0077	-0.0108	-0.0001	.00001	-0.0000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-0.0060	-0.0115	.00097	.14027	.20681	.28951	.00306	-0.0165	.00102
.000	-0.0063	-0.0120	.00102	.14018	.20668	.28932	.00306	-0.0165	.00102
4.000	-0.0063	-0.0120	.00102	.14208	.20948	.29323	.00310	-0.0167	.00103
GRADIENT	-0.0000	-0.0001	.00001	.00023	.00333	.00047	.00000	-0.0000	.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA									
-4.000	-0.0060	-0.0115	.00098	.14329	.21126	.29573	.00313	-0.0168	.00104
.000	-0.0063	-0.0121	.00102	.14400	.21231	.29719	.00314	-0.0169	.00104
4.000	-0.0065	-0.0123	.00105	.14815	.21843	.30577	.00323	-0.0174	.00107
GRADIENT	-0.0001	-0.0001	.00001	.00061	.00090	.00125	.00001	-0.0001	.00000

DATE 09 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(GE8031) ( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00044  
 -.00045  
 -.00046  
 -.00000  
 GRADIENT

CA5  
 -.00085  
 -.00065  
 -.00087  
 -.00000

CLM5  
 .00072  
 .00072  
 .00074  
 .00000

CN6  
 .11801  
 .12104  
 .12888  
 .00136

CA6  
 .17400  
 .17846  
 .19001  
 .00200

CLM6  
 .24357  
 .24982  
 .26599  
 .00280

CY6  
 .00258  
 .00264  
 .00281  
 .00003

CYN6  
 -.00139  
 -.00142  
 -.00151  
 -.00002

CBL6  
 .00065  
 .00068  
 .00093  
 .00001

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00042  
 -.00044  
 -.00045  
 -.00000

CA5  
 -.00081  
 -.00083  
 -.00086  
 -.00001

CLM5  
 .00069  
 .00071  
 .00073  
 .00001

CN6  
 .11854  
 .11864  
 .11912  
 .00007

CA6  
 .17477  
 .17492  
 .17562  
 .00011

CLM6  
 .24465  
 .24486  
 .24584  
 .00315

CY6  
 .00259  
 .00259  
 .00260  
 .00000

CYN6  
 -.00139  
 -.00139  
 -.00140  
 -.00000

CBL6  
 .00056  
 .00056  
 .00056  
 .00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00041  
 -.00041  
 -.00044  
 -.00000

CA5  
 -.00078  
 -.00079  
 -.00084  
 -.00001

CLM5  
 .00066  
 .00067  
 .00071  
 .00001

CN6  
 .10882  
 .11877  
 .10154  
 -.00091

CA6  
 .16044  
 .17511  
 .14970  
 -.00134

CLM6  
 .22459  
 .24512  
 .20956  
 -.00188

CY6  
 .00238  
 .00259  
 .00222  
 -.00002

CYN6  
 -.00128  
 -.00139  
 -.00119  
 .00001

CBL6  
 .00079  
 .00055  
 .00074  
 -.00001

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00040  
 -.00042  
 -.00042  
 -.00000

CA5  
 -.00077  
 -.00080  
 -.00080  
 -.00000

CLM5  
 .00066  
 .00068  
 .00068  
 .00000

CN6  
 .11464  
 .11690  
 .10623  
 -.00105

CA6  
 .16902  
 .17235  
 .15662  
 -.00155

CLM6  
 .23661  
 .24126  
 .21924  
 -.00217

CY6  
 .00250  
 .00255  
 .00232  
 -.00002

CYN6  
 -.00135  
 -.00137  
 -.00125  
 .00001

CBL6  
 .00083  
 .00085  
 .00077  
 -.00001

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00042  
 -.00042  
 -.00045  
 -.00000

CA5  
 -.00081  
 -.00081  
 -.00086  
 -.00001

CLM5  
 .00069  
 .00069  
 .00073  
 .00001

CN6  
 .12257  
 .12412  
 .11773  
 -.00060

CA6  
 .18071  
 .18300  
 .17358  
 -.00089

CLM6  
 .25296  
 .25617  
 .24298  
 -.00125

CY6  
 .00268  
 .00271  
 .00257  
 -.00001

CYN6  
 -.00144  
 -.00146  
 -.00138  
 .00001

CBL6  
 .00069  
 .00090  
 .00065  
 -.00000



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 657

(GE8D32) : 23 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SCALE = .0300

XMRP = 1076.6900 IN. X0  
YMRP = .0000 IN. Y0  
ZMRP = 375.0000 IN. Z0

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
BDFLAP = 16.300 ELVN-L = 10.000  
ELVN-R = .000 MACH = .600

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CN5  
-0.0040  
-0.0039  
-0.0040  
-0.0041  
-0.0041  
-0.0040

CA5  
-0.0076  
-0.0075  
-0.0076  
-0.0078  
-0.0078  
-0.0078

CLM5  
-0.0064  
-0.0064  
-0.0065  
-0.0065  
-0.0066  
-0.0066

CN6  
-0.12487  
-0.12264  
-0.12331  
-0.12461  
-0.13509  
-0.00150

CA6  
-0.18411  
-0.18082  
-0.19065  
-0.19846  
-0.1997  
-0.00221

CLM6  
-0.25772  
-0.25312  
-0.26688  
-0.27782  
-0.27880  
-0.00309

CY6  
-0.00273  
-0.00268  
-0.00282  
-0.00294  
-0.00295  
-0.00003

CYN6  
-0.00147  
-0.00144  
-0.00152  
-0.00158  
-0.00159  
-0.00002

CBL6  
-0.00090  
-0.00089  
-0.00094  
-0.00098  
-0.00098  
-0.00001

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CN5  
-0.0038  
-0.0039  
-0.0039  
-0.0040  
-0.0040  
-0.0040

CA5  
-0.0074  
-0.0074  
-0.0074  
-0.0077  
-0.0076  
-0.0076

CLM5  
-0.0062  
-0.0063  
-0.0063  
-0.0065  
-0.0065  
-0.0065

CN6  
-0.12918  
-0.12439  
-0.12803  
-0.12949  
-0.13073  
-0.00064

CA6  
-0.19046  
-0.18339  
-0.18877  
-0.19092  
-0.19274  
-0.00094

CLM6  
-0.26662  
-0.25672  
-0.26424  
-0.26725  
-0.26980  
-0.00132

CY6  
-0.00282  
-0.00272  
-0.00279  
-0.00283  
-0.00285  
-0.00001

CYN6  
-0.00152  
-0.00146  
-0.00150  
-0.00152  
-0.00153  
-0.00001

CBL6  
-0.00094  
-0.00090  
-0.00093  
-0.00094  
-0.00095  
-0.00000

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CN5  
-0.0038  
-0.0038  
-0.0039  
-0.0039  
-0.0040  
-0.0040

CA5  
-0.0073  
-0.0072  
-0.0075  
-0.0074  
-0.0076  
-0.0076

CLM5  
-0.0062  
-0.0061  
-0.0063  
-0.0063  
-0.0064  
-0.0064

CN6  
-0.12364  
-0.12024  
-0.12055  
-0.11598  
-0.12129  
-0.00053

CA6  
-0.18966  
-0.17728  
-0.17774  
-0.17039  
-0.17882  
-0.00079

CLM6  
-0.26549  
-0.24817  
-0.24881  
-0.23936  
-0.25031  
-0.00110

CY6  
-0.00281  
-0.00262  
-0.00263  
-0.00253  
-0.00265  
-0.00001

CYN6  
-0.00151  
-0.00141  
-0.00142  
-0.00136  
-0.00142  
-0.00001

CBL6  
-0.00093  
-0.00087  
-0.00087  
-0.00084  
-0.00088  
-0.00000

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CN5  
-0.0037  
-0.0037  
-0.0037  
-0.0039  
-0.0042  
-0.0040

CA5  
-0.0070  
-0.0070  
-0.0071  
-0.0074  
-0.0090  
-0.0090

CLM5  
-0.0060  
-0.0059  
-0.0060  
-0.0063  
-0.0068  
-0.0068

CN6  
-0.10938  
-0.11710  
-0.11863  
-0.11594  
-0.09764  
-0.00014

CA6  
-0.16126  
-0.17265  
-0.17490  
-0.17035  
-0.14395  
-0.00321

CLM6  
-0.22574  
-0.24168  
-0.24483  
-0.23930  
-0.20151  
-0.00030

CY6  
-0.00239  
-0.00256  
-0.00259  
-0.00253  
-0.00213  
-0.00000

CYN6  
-0.00128  
-0.00137  
-0.00139  
-0.00135  
-0.00115  
-0.00000

CBL6  
-0.00079  
-0.00085  
-0.00086  
-0.00084  
-0.00071  
-0.00000

DATE 08 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

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OA148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1 (GE8032) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 35.000  
 BOFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = .000 MACH = .600

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

CN5  
 -.00034  
 -.00037  
 -.00037  
 -.00038  
 -.00043  
 -.00000

GRADIENT

CA5  
 -.00065  
 -.00070  
 -.00070  
 -.00072  
 -.00082  
 -.00000

CN5

CLM5  
 .00055  
 .00060  
 .00060  
 .00061  
 .00070  
 .00000

CN6

CA6  
 .19090  
 .17379  
 .17370  
 .16675  
 .17138  
 -.00088

CLM6

CY6  
 .00283  
 .00257  
 .00257  
 .00247  
 .00254  
 -.00001

CYN6

CBL6  
 -.00152  
 -.00138  
 -.00138  
 -.00133  
 -.00136  
 -.00001

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 1.400

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

CN5  
 -.00051  
 -.00050  
 -.00051  
 -.00051  
 .00000

GRADIENT

CA5  
 -.00098  
 -.00096  
 -.00097  
 -.00097  
 .00000

CN5

CLM5  
 .00083  
 .00081  
 .00082  
 .00000  
 -.00000

CN6

CA6  
 .14344  
 .14038  
 .14364  
 .00003  
 .00003

CLY

CY6  
 -.00212  
 -.00208  
 -.00213  
 -.00000  
 -.00000

CYN6

CBL6  
 -.00070  
 -.00069  
 -.00071  
 -.00000  
 -.00000

ALPHA = .000

BETA

CN5  
 -.00051  
 -.00048  
 -.00048  
 -.00048  
 .00000

GRADIENT

CA5  
 -.00097  
 -.00092  
 -.00093  
 -.00093  
 .00001

CN5

CLM5  
 .00082  
 .00078  
 .00078  
 .00000  
 -.00000

CN6

CA6  
 .14083  
 .13682  
 .14107  
 .00003  
 .00003

CLM6

CY6  
 -.00209  
 -.00203  
 -.00209  
 -.00000  
 -.00000

CYN6

CBL6  
 -.00069  
 -.00067  
 -.00069  
 -.00000  
 -.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = 10.000 SPDBRK = 35.000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = .000  
 BREF = 936.8000 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = 1.400  
 SCALE = .0300

PARAMETRIC DATA

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00051	-.00097	.00082	.09585	.14131	.19781	-.00209	.00113	-.00069
-.00047	-.00089	.00076	.09480	.13977	.19566	-.00207	.00111	-.00069
-.00047	-.00089	.00076	.10041	.14804	.20723	-.00219	.00118	-.00073
.00001	.00001	-.00001	.00057	.00084	.00113	-.00001	.00001	-.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00052	-.00099	.00084	.09953	.14675	.20543	-.00217	.00117	-.00072
-.00048	-.00092	.00078	.09558	.14240	.19933	-.00211	.00113	-.00070
-.00047	-.00090	.00076	.10252	.15116	.21159	-.00224	.00120	-.00074
.00001	.00001	-.00001	.00037	.00055	.00077	-.00001	.00000	-.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00053	-.00102	.00086	.10103	.14896	.20852	-.00221	.00119	-.00073
-.00050	-.00095	.00080	.09740	.14361	.20103	-.00213	.00114	-.00071
-.00049	-.00094	.00080	.10391	.15320	.21445	-.00227	.00122	-.00075
.00000	.00001	-.00001	.00036	.00053	.00074	-.00001	.00000	-.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00054	-.00102	.00097	.10363	.15278	.21387	-.00226	.00122	-.00075
-.00053	-.00102	.00086	.10333	.15235	.21326	-.00226	.00121	-.00075
-.00052	-.00100	.00085	.10795	.15915	.22279	-.00236	.00127	-.00078
.00000	.00000	-.00000	.00054	.00080	.00111	-.00001	.00001	-.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(GE8034) 23 AUG 75

REFERENCE DATA

REF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 936.6800 IN.  
SC = .0300

PARAMETRIC DATA  
RUDDER = 10.000 SPDRK = 35.000  
BDFLAP = 16.300 ELVN-L = .000  
ELVN-R = 10.000 MACH = 1.250

ALPHA = -4.000  
BETA = -4.000  
GRADIENT = 4.000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00057	-.00109	.00032	.11354	.16739	.23432	-.00248	.00133	-.00082
-.00054	-.00104	.00088	.11396	.16802	.23520	-.00249	.00134	-.00083
-.00054	-.00103	.00087	.11828	.17145	.24000	-.00254	.00137	-.00084
.00000	.00001	-.00001	.00034	.00051	.00071	-.00001	.00000	-.00000

ALPHA = .000  
BETA = -4.000  
GRADIENT = 4.000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00056	-.00107	.00091	.11570	.17059	.23980	-.00253	.00136	-.00084
-.00052	-.00100	.00095	.11461	.16997	.23653	-.00250	.00135	-.00083
-.00053	-.00101	.00096	.12006	.17702	.24780	-.00262	.00141	-.00087
.00000	.00001	-.00001	.00055	.00080	.00112	-.00001	.00001	-.00000

ALPHA = 4.000  
BETA = -4.000  
GRADIENT = 4.000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00056	-.00107	.00091	.11685	.17229	.24117	-.00255	.00137	-.00085
-.00053	-.00102	.00086	.11584	.17080	.23909	-.00253	.00136	-.00084
-.00052	-.00099	.00084	.12407	.18293	.25607	-.00271	.00146	-.00090
.00001	.00001	-.00001	.00090	.00133	.00186	-.00002	.00001	-.00001

ALPHA = 8.000  
BETA = -4.000  
GRADIENT = 4.000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00057	-.00110	.00093	.11614	.17124	.23971	-.00255	.00136	-.00084
-.00055	-.00105	.00089	.11685	.17229	.24117	-.00255	.00137	-.00085
-.00053	-.00101	.00085	.12378	.18250	.25547	-.00270	.00145	-.00090
.00001	.00001	-.00001	.00095	.00141	.00197	-.00002	.00001	-.00001

ALPHA = 12.000  
BETA = -4.000  
GRADIENT = 4.000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00058	-.00110	.00093	.11664	.17197	.24072	-.00255	.00137	-.00085
-.00057	-.00108	.00092	.11920	.17575	.24602	-.00260	.00140	-.00086
-.00056	-.00107	.00091	.12495	.18422	.25789	-.00273	.00147	-.00091
.00000	.00000	-.00000	.00104	.00153	.00215	-.00002	.00001	-.00001

DATE 08 MAY 76

TABULATED FORCE DATA - OAI48 ( AMES 11-073-1 )

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OAI48 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(GE8035) ( 23 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = 10.000 SPOBRK = 35.000  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO BOFLAP = 16.300 ELVN-L = .000  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = 1.100  
 SCALE = .0300

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

 ALPHA = -4.000  
 BETA = -4.000

CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00053	-.00121	.00103	.13788	.20329	.28458	-.00301	.00162	-.00100
-.00059	-.00114	.00096	.13739	.20256	.28355	-.00300	.00161	-.00100
-.00059	-.00113	.00096	.14273	.21044	.29459	-.00312	.00168	-.00103
.00001	.00001	-.00001	.00061	.00089	.00125	-.00001	.00001	-.00000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

 ALPHA = .000  
 BETA = -4.000

CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00061	-.00117	.00099	.13940	.20553	.28771	-.00304	.00154	-.00101
-.00058	-.00111	.00094	.13684	.20145	.29200	-.00298	.00160	-.00099
-.00058	-.00110	.00093	.14531	.21424	.29991	-.00317	.00171	-.00105
.00000	.00001	-.00001	.00074	.00109	.00152	-.00002	.00001	-.00001

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

 ALPHA = 4.000  
 BETA = -4.000

CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00060	-.00115	.00097	.14039	.20699	.28975	-.00306	.00165	-.00102
-.00059	-.00114	.00096	.13779	.20315	.28438	-.00301	.00162	-.00100
-.00057	-.00109	.00092	.14232	.20983	.29372	-.00311	.00167	-.00103
.00000	.00001	-.00001	.00024	.00036	.00050	-.00001	.00000	-.00000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

 ALPHA = 8.000  
 BETA = -4.000

CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00062	-.00118	.00100	.14244	.21001	.29398	-.00311	.00167	-.00103
-.00061	-.00116	.00098	.14340	.21143	.29597	-.00313	.00168	-.00104
-.00059	-.00113	.00096	.13987	.20623	.28869	-.00305	.00154	-.00101
.00000	.00001	-.00001	-.00032	-.00047	-.00066	.00001	-.00000	.00000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

 ALPHA = 12.000  
 BETA = -4.000

CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00064	-.00122	.00104	.14831	.21867	.30610	-.00324	.00174	-.00107
-.00062	-.00119	.00101	.14761	.21764	.30466	-.00322	.00173	-.00107
-.00060	-.00115	.00098	.14039	.20699	.28975	-.00306	.00165	-.00102
.00000	.00001	-.00001	-.00099	-.00146	-.00204	.00002	-.00001	.00001

DATE 08 MAY 76

TABULATED FORCE DATA - CA148 ( AMES 11-073-1 )

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(GE8D36) ( 23 AUG 75 )

REFERENCE DATA

REF = 2690.0000 SQ.FT.  
 XMRP = 1076.6800 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPCBPK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00045  
 -.00044  
 -.00044  
 .00000

CLM5  
 .00073  
 .00072  
 .00072  
 -.00000

CA5  
 -.00085  
 -.00085  
 -.00085  
 .00000

CN6  
 .12819  
 .11855  
 .12523  
 -.00037

CLM6  
 .26458  
 .24467  
 .25845  
 -.00077

CA6  
 .18901  
 .17478  
 .18463  
 -.00055

CY6  
 -.00280  
 -.00259  
 -.00273  
 .00001

CYN6  
 .00150  
 .00139  
 .00147  
 -.00000

CBL6  
 -.00093  
 -.00086  
 -.00091  
 .00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00043  
 -.00042  
 -.00042  
 .00000

CLM5  
 .00070  
 .00068  
 .00068  
 -.00000

CA5  
 -.00083  
 -.00081  
 -.00080  
 .00000

CN6  
 .11989  
 .11453  
 .11975  
 -.00002

CLM6  
 .24743  
 .23639  
 .24716  
 -.00003

CA6  
 .17676  
 .16887  
 .17656  
 -.00002

CY6  
 -.00262  
 -.00250  
 -.00261  
 .00000

CYN6  
 .00141  
 .00134  
 .00141  
 -.00000

CBL6  
 -.00087  
 -.00083  
 -.00087  
 .00000

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00042  
 -.00041  
 -.00040  
 .00000

CLM5  
 .00068  
 .00066  
 .00064  
 -.00000

CA5  
 -.00080  
 -.00078  
 -.00076  
 .00001

CN6  
 .10466  
 .11285  
 .11003  
 .00067

CLM6  
 .21602  
 .23291  
 .22709  
 .00138

CA6  
 .15432  
 .16538  
 .16222  
 .00099

CY6  
 -.00228  
 -.00246  
 -.00240  
 -.00001

CYN6  
 .00123  
 .00132  
 .00129  
 .00001

CBL6  
 -.00076  
 -.00082  
 -.00080  
 .00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00042  
 -.00041  
 -.00039  
 .00000

CLM5  
 .00069  
 .00066  
 .00063  
 -.00001

CA5  
 -.00081  
 -.00078  
 -.00074  
 .00001

CN6  
 .10927  
 .11231  
 .11287  
 .00045

CLM6  
 .22553  
 .23180  
 .23296  
 .00093

CA6  
 .16111  
 .16559  
 .16642  
 .00066

CY6  
 -.00239  
 -.00245  
 -.00246  
 -.00001

CYN6  
 .00128  
 .00132  
 .00133  
 .00001

CBL6  
 -.00079  
 -.00081  
 -.00082  
 .00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00045  
 -.00043  
 -.00042  
 .00000

CLM5  
 .00072  
 .00070  
 .00068  
 -.00001

CA5  
 -.00085  
 -.00083  
 -.00080  
 .00001

CN6  
 .12001  
 .12157  
 .12120  
 .00015

CLM6  
 .24769  
 .25090  
 .25015  
 .00031

CA6  
 .17694  
 .17923  
 .17870  
 .00022

CY6  
 -.00262  
 -.00265  
 -.00265  
 -.00000

CYN6  
 .00141  
 .00143  
 .00142  
 .00000

CBL6  
 -.00087  
 -.00088  
 -.00088  
 .00000

DATE 08 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I (GE8D37) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = 10.000 SPDBRK = 35.000  
 BOFLAP = 16.300 ELVN-L = .000  
 ELVN-R = 10.000 MACH = .600

## PARAMETRIC DATA

ALPHA = -4.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CN5  
 -.00042  
 -.00041  
 -.00039  
 -.00041  
 -.00041  
 -.00041  
 -.00041  
 -.00041  
 -.00041  
 -.00041

CA5  
 -.00081  
 -.00078  
 -.00075  
 -.00077  
 -.00078  
 -.00078  
 -.00078  
 -.00078  
 -.00078  
 -.00078

CLM5  
 .00068  
 .00065  
 .00064  
 .00066  
 .00066  
 .00066  
 .00066  
 .00066  
 .00066  
 .00066

CN6  
 .13456  
 .13081  
 .12300  
 .12313  
 .13142  
 .13142  
 .13142  
 .13142  
 .13142  
 .13142

CA6  
 .19340  
 .19286  
 .18134  
 .18153  
 .19376  
 .19376  
 .19376  
 .19376  
 .19376  
 .19376

CLM6  
 .27772  
 .26397  
 .25385  
 .25412  
 .27123  
 .27123  
 .27123  
 .27123  
 .27123  
 .27123

CY6  
 -.00294  
 -.00286  
 -.00269  
 -.00269  
 -.00287  
 -.00287  
 -.00287  
 -.00287  
 -.00287  
 -.00287

CYN6  
 .00158  
 .00154  
 .00144  
 .00145  
 .00154  
 .00154  
 .00154  
 .00154  
 .00154  
 .00154

CBL6  
 -.00097  
 -.00095  
 -.00089  
 -.00089  
 -.00095  
 -.00095  
 -.00095  
 -.00095  
 -.00095  
 -.00095

ALPHA = .000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CN5  
 -.00041  
 -.00039  
 -.00039  
 -.00039  
 -.00039  
 -.00039  
 -.00039  
 -.00039  
 -.00039  
 -.00039

CA5  
 -.00078  
 -.00074  
 -.00074  
 -.00075  
 -.00074  
 -.00074  
 -.00074  
 -.00074  
 -.00074  
 -.00074

CLM5  
 .00066  
 .00063  
 .00063  
 .00064  
 .00062  
 .00062  
 .00062  
 .00062  
 .00062  
 .00062

CN6  
 .13311  
 .12794  
 .12145  
 .12785  
 .13198  
 .13198  
 .13198  
 .13198  
 .13198  
 .13198

CA6  
 .19625  
 .18863  
 .17906  
 .16850  
 .19459  
 .19459  
 .19459  
 .19459  
 .19459  
 .19459

CLM6  
 .27472  
 .26406  
 .25066  
 .26387  
 .27239  
 .27239  
 .27239  
 .27239  
 .27239  
 .27239

CY6  
 -.00291  
 -.00279  
 -.00265  
 -.00279  
 -.00288  
 -.00288  
 -.00288  
 -.00288  
 -.00288  
 -.00288

CYN6  
 .00156  
 .00150  
 .00143  
 .00150  
 .00155  
 .00155  
 .00155  
 .00155  
 .00155  
 .00155

CBL6  
 -.00096  
 -.00093  
 -.00088  
 -.00093  
 -.00096  
 -.00096  
 -.00096  
 -.00096  
 -.00096  
 -.00096

ALPHA = 4.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CN5  
 -.00041  
 -.00037  
 -.00037  
 -.00037  
 -.00037  
 -.00037  
 -.00037  
 -.00037  
 -.00037  
 -.00037

CA5  
 -.00078  
 -.00071  
 -.00071  
 -.00072  
 -.00071  
 -.00071  
 -.00071  
 -.00071  
 -.00071  
 -.00071

CLM5  
 .00066  
 .00060  
 .00060  
 .00061  
 .00060  
 .00060  
 .00060  
 .00060  
 .00060  
 .00060

CN6  
 .12560  
 .11307  
 .11947  
 .12006  
 .12810  
 .12810  
 .12810  
 .12810  
 .12810  
 .12810

CA6  
 .18519  
 .16671  
 .17614  
 .17701  
 .18986  
 .18986  
 .18986  
 .18986  
 .18986  
 .18986

CLM6  
 .25923  
 .23337  
 .24656  
 .24779  
 .26438  
 .26438  
 .26438  
 .26438  
 .26438  
 .26438

CY6  
 -.00274  
 -.00247  
 -.00261  
 -.00262  
 -.00280  
 -.00280  
 -.00280  
 -.00280  
 -.00280  
 -.00280

CYN6  
 .00147  
 .00133  
 .00140  
 .00141  
 .00150  
 .00150  
 .00150  
 .00150  
 .00150  
 .00150

CBL6  
 -.00091  
 -.00082  
 -.00087  
 -.00087  
 -.00093  
 -.00093  
 -.00093  
 -.00093  
 -.00093  
 -.00093

ALPHA = 8.000

BETA

-8.000

-4.000

.000

4.000

8.000

GRADIENT

CN5  
 -.00040  
 -.00035  
 -.00036  
 -.00037  
 -.00037  
 -.00037  
 -.00037  
 -.00037  
 -.00037  
 -.00037

CA5  
 -.00077  
 -.00070  
 -.00068  
 -.00072  
 -.00070  
 -.00070  
 -.00070  
 -.00070  
 -.00070  
 -.00070

CLM5  
 .00065  
 .00059  
 .00058  
 .00061  
 .00060  
 .00060  
 .00060  
 .00060  
 .00060  
 .00060

CN6  
 .09700  
 .11021  
 .11744  
 .11847  
 .11721  
 .11721  
 .11721  
 .11721  
 .11721  
 .11721

CA6  
 .14302  
 .16249  
 .17315  
 .17467  
 .17281  
 .17281  
 .17281  
 .17281  
 .17281  
 .17281

CLM6  
 .20021  
 .22745  
 .24239  
 .24451  
 .24191  
 .24191  
 .24191  
 .24191  
 .24191  
 .24191

CY6  
 -.00212  
 -.00241  
 -.00256  
 -.00259  
 -.00256  
 -.00256  
 -.00256  
 -.00256  
 -.00256  
 -.00256

CYN6  
 .00114  
 .00129  
 .00138  
 .00139  
 .00138  
 .00138  
 .00138  
 .00138  
 .00138  
 .00138

CBL6  
 -.00070  
 -.00080  
 -.00086  
 -.00086  
 -.00085  
 -.00085  
 -.00085  
 -.00085  
 -.00085  
 -.00085

(GE8D37) 23 AUG 75

TABULATED FORCE DATA - OAI48 (AMES 11-073-1)  
OAI48 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

REFERENCE DATA  
REF = 2690.0000 SQ. FT.  
REF = 474.8000 IN.  
REF = 936.6800 IN.  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000  
BDFLAP = 16.300  
ELVN-R = 10.000  
MACH = .600  
SPDRK = 35.000  
ELVN-L = .000

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CNS	CA5	CLM5	CNS	CA5	CLM6	CYS	CYS6	CLB6
BETA									
-8.000	-0.0042	-0.0080	-0.0068	.12011	.17709	.24789	-.00262	-.00141	-.00087
-4.000	-0.0035	-0.0067	-0.0057	.11314	.16681	.23351	-.00247	.00133	-.00082
.000	-0.0037	-0.0070	-0.0059	.11846	.17466	.24449	-.00259	.00139	-.00086
4.000	-0.0035	-0.0067	-0.0057	.11444	.16973	.23620	-.00250	.00134	-.00083
8.000	-0.0035	-0.0067	-0.0056	.13440	.19815	.27738	-.00293	.00158	-.00097
GRADIENT	-0.00000	-0.00000	-0.00000	.00016	.00024	.00034	-.00000	.00000	-.00000

(GE8D38) 23 AUG 75

OAI48 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

PARAMETRIC DATA

RUDDER = 10.000  
BDFLAP = 16.300  
ELVN-R = 10.000  
MACH = 1.400  
SPDRK = 85.000  
ELVN-L = 10.000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CNS	CA5	CLM5	CNS	CA5	CLM6	CYS	CYS6	CLB6
BETA									
-4.000	-0.0056	-0.0108	-0.0092	.12159	.17820	.25892	-.00700	.00234	-.00246
.000	-0.0052	-0.0100	-0.0085	.11833	.17343	.25199	-.00682	.00374	-.00240
4.000	-0.0052	-0.0095	-0.0084	.11979	.17557	.25510	-.00690	.00379	-.00243
GRADIENT	.00001	.00001	-.00001	-.00002	-.00033	-.00048	.00001	-.00001	.00000

ALPHA = .000	CNS	CA5	CLM5	CNS	CA5	CLM6	CYS	CYS6	CLB6
BETA									
-4.000	-0.0055	-0.0105	-0.0089	.12040	.17646	.25639	-.00694	.00381	-.00244
.000	-0.0052	-0.0099	-0.0084	.11822	.17326	.25175	-.00681	.00374	-.00240
4.000	-0.0052	-0.0100	-0.0084	.12017	.17612	.25589	-.00692	.00380	-.00244
GRADIENT	.00000	.00001	-.00001	-.00003	-.00004	-.00006	.00000	-.00000	.00000



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

**PAGE 39V**

(GE8038) 1 23 AUG 75 )

## REFERENCE DATA

```

SREF = 2553.0000 SQ.FT.      XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN.          YMRP = .0000 IN. Y0
BREF = 935.6300 IN.          ZMRP = 375.0000 IN. Z0
SCALE = .0300

```

### PARAMETRIC DATA

RUDDER =	10.000	SPD3FX =	65.000
BDFLAP =	16.300	ELVN-L =	10.000
ELVN-R =	10.000	MACH =	1.400

RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

[illegible]

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	=	12.000
BETA	-4.	.000
CNS	-	.00055
CAS	-	.00106
CLM5	-	.00090
CN6	-	.12002
CA6	-	.17591
CLM6	-	.25559
CY6	-	.00691
CYN6	-	.00380
CBL6	-	.00243
CNS	-	.00052
CAS	-	.00100
CLM5	-	.00085
CN6	-	.11662
CA6	-	.17092
CLM6	-	.24834
CY6	-	.00572
CYN6	-	.00369
CBL6	-	.00236
CNS	-	.00052
CAS	-	.00099
CLM5	-	.00084
CN6	-	.11738
CA6	-	.17204
CLM6	-	.24995
CY6	-	.00676
CYN6	-	.00371
CBL6	-	.00238
CNS	-	.00000
CAS	-	.00001
CLM5	-	.00001
CN6	-	.00033
CA6	-	.00048
CLM6	-	.00070
CY6	-	.00002
CYN6	-	.00001
CBL6	-	.00001
GRADIENT		

$RN/L = 2.92$       GRADIENT INTERVAL =  $-5.00/5.00$

ALPHA =	16.000
BETA	-4.000
CNS	-0.0059
CAS	-0.0113
CLM5	-0.0086
CM6	.12639
CA6	.18524
CLM6	.26914
CY6	-.00728
CY+6	.00000
CBL6	-.00256
CNS	-0.0054
CAS	-0.0103
CLM5	.00088
CM6	.12114
CA6	.17594
CLM6	.25797
CY6	-.03659
CY+6	.00383
CBL6	-.00246
CNS	-0.0054
CAS	-0.0104
CLM5	-0.0001
CM6	-0.0073
CA6	-.03115
CLM6	-.00169
CY6	.00005
CY+6	-.00003
CBL6	-.00002
GRADIENT	4.000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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( 050000 ) ( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

## REFERENCE DATA

REF = 2890.000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 SREF = 335.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0000

## PARAMETRIC DATA

RUDDER = 1.000 SPDSK = 65.000  
 BDFLAP = 12.000 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = 1.250

PN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CMS	CAS	CLMS	CMS	CAS	CLMS	CY6	CYN6	CBL6
BETA = -4.000	-0.0073	-0.0139	.00118	.15259	.22354	.32494	-0.0879	.00482	-0.00309
GRADIENT	-0.0064	-0.0122	.00104	.15464	.22664	.32930	-0.0891	.00489	-0.00313
	-0.0060	-0.0115	.00098	.15020	.22814	.31985	-0.0865	.00475	-0.00304
	.00002	.00003	-0.00002	-0.00030	-0.00044	-0.00064	.00002	-0.00001	.00001

PN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CMS	CAS	CLMS	CMS	CAS	CLMS	CY6	CYN6	CBL6
BETA = -4.000	-0.0065	-0.0125	.00106	.14495	.21245	.30538	-0.0835	.00458	-0.00294
GRADIENT	-0.0059	-0.0113	.00096	.13829	.20269	.29449	-0.0797	.00437	-0.00280
	-0.0050	-0.0105	.00097	.14314	.20979	.30481	-0.0825	.00453	-0.00290
	.00001	.00001	-0.00001	-0.00023	-0.00033	-0.00048	.00001	-0.00001	.00000

PN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CMS	CAS	CLMS	CMS	CAS	CLMS	CY6	CYN6	CBL6
BETA = -4.000	-0.0065	-0.0124	.00105	.14652	.21474	.31200	-0.0844	.00463	-0.00297
GRADIENT	-0.0060	-0.0115	.00097	.13265	.19471	.28290	-0.0765	.00420	-0.00269
	-0.0057	-0.0109	.00093	.14036	.20659	.30017	-0.0812	.00445	-0.00285
	.00001	.00002	-0.00002	-0.00069	-0.00102	-0.00148	.00004	-0.00002	.00000

PN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CMS	CAS	CLMS	CMS	CAS	CLMS	CY6	CYN6	CBL6
BETA = -4.000	-0.0065	-0.0124	.00105	.14354	.21037	.30566	-0.0827	.00454	-0.00291
GRADIENT	-0.0061	-0.0117	.00099	.12993	.19042	.27658	-0.0748	.00411	-0.00263
	-0.0059	-0.0112	.00095	.13909	.20239	.29407	-0.0796	.00437	-0.00280
	.00001	.00001	-0.00001	-0.00068	-0.00100	-0.00145	.00004	-0.00002	.00001

PN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CMS	CAS	CLMS	CMS	CAS	CLMS	CY6	CYN6	CBL6
BETA = -4.000	-0.0065	-0.0124	.00105	.13765	.20209	.29363	-0.0794	.00436	-0.00279
GRADIENT	-0.0061	-0.0117	.00099	.12849	.18832	.27363	-0.0740	.00426	-0.00260
	-0.0061	-0.0116	.00099	.13553	.19864	.28361	-0.0781	.00429	-0.00275
	.00001	.00001	-0.00001	-0.00029	-0.00043	-0.00063	.00002	-0.00001	.00001





DATE 08 MAY 75

TABULATED FORCE DATA - 04148 ( AMES 11-073-1 )

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04148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I (GE8042) ( 23 AUG 75 )

# REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.600 IN. XO  
 LREF = 474.600 IN. YMRP = .0000 IN. YO  
 BREF = 935.600 IN. ZMRP = 375.000 IN. ZO  
 SCALE = .0300

# PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 65.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

RN/L = 4.67 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0054	-0.0103	.00087	.14443	.21167	.30755	-.00832	.00457	-.00293
-8.000	-0.0053	-0.0102	.00037	.13713	.20098	.29202	-.00790	.00434	-.00278
-4.000	.000	-0.0100	.00085	.13771	.20183	.29325	-.00793	.00435	-.00279
4.000	-0.0052	-0.0100	.00085	.13604	.19938	.28969	-.00784	.00430	-.00276
8.000	-0.0054	-0.0103	.00086	.14300	.20573	.30451	-.00824	.03452	-.00290
GRADIENT	.00000	.00000	-.00000	-.00014	-.00020	-.00029	.00001	-.00000	.00000

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0051	-0.0098	.00033	.14909	.21851	.31749	-.00859	.00471	-.00302
-8.000	-0.0052	-0.0099	.00034	.14170	.20767	.30174	-.00816	.00448	-.00287
-4.000	.000	-0.0099	.00083	.13908	.20364	.29617	-.00801	.00440	-.00282
4.000	-0.0052	-0.0099	.00084	.14090	.20650	.30004	-.00812	.00446	-.00286
8.000	-0.0054	-0.0103	.00087	.15015	.22007	.31975	-.00865	.00475	-.00304
GRADIENT	.00000	.00000	-.00000	-.00010	-.00015	-.00021	.00001	-.00000	.00000

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0051	-0.0098	.00083	.15666	.22960	.33360	-.00912	.00495	-.00318
-8.000	-0.0049	-0.0093	.00079	.13859	.20312	.29512	-.00798	.00438	-.00281
-4.000	.000	-0.0094	.00080	.13623	.19965	.29009	-.00785	.00431	-.00276
4.000	-0.0049	-0.0095	.00080	.13925	.20409	.29654	-.00802	.00440	-.00282
8.000	-0.0054	-0.0102	.00087	.15393	.22560	.32778	-.00887	.00487	-.00312
GRADIENT	-.00000	-.00000	.00000	.00008	.00012	.00018	-.00000	.00000	-.00000

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0049	-0.0097	.00079	.12229	.17924	.26042	-.00704	.00387	-.00248
-8.000	-0.0047	-0.0089	.00075	.14234	.20562	.30311	-.00620	.00450	-.00269
-4.000	.000	-0.0091	.00077	.13497	.19782	.28742	-.00778	.00427	-.00274
4.000	-0.0050	-0.0095	.00081	.14441	.21165	.30752	-.00832	.00457	-.00293
8.000	-0.0054	-0.0096	.00082	.14304	.20964	.30460	-.00824	.00452	-.00290
GRADIENT	-.00000	-.00001	.00001	.00026	.00038	.00055	-.00001	.00001	-.00001

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I (GE8D42) ( 23 AUG 75 )

## REFERENCE DATA

REF = 2690.0000 SQ.FT. YMRP = 1076.6800 IN. XO  
 REF = 474.8000 IN. YMRP = .0000 IN. YO  
 REF = 935.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

CNS  
 -0.0046  
 -0.0045  
 -0.0048  
 -0.0048  
 -0.0053  
 -0.0000

GRADIENT

CA5  
 -0.0088  
 -0.0087  
 -0.0092  
 -0.0091  
 -0.0101  
 -0.0001

CN5  
 .15018  
 .14277  
 .13474  
 .14268  
 .15724  
 -.00001

CLM5  
 .00074  
 .00074  
 .00078  
 .00077  
 .00085  
 .00000

CA6  
 .22010  
 .20924  
 .19747  
 .20912  
 .23046  
 -.00002

CY6  
 -.00865  
 -.00922  
 -.00776  
 -.00822  
 -.00906  
 .00000

CYN5  
 .00475  
 .00451  
 .00426  
 .00451  
 .00497  
 -.00000

CBL6  
 -.00304  
 -.00289  
 -.00273  
 -.00289  
 -.00319  
 .00000

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 65.000  
 BDFLAP = 16.300 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

## REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 REF = 474.8000 IN. YMRP = .0000 IN. YO  
 REF = 935.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RN/L = 3.67 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

CNS  
 -0.0054  
 -0.0053  
 -0.0054  
 -0.0054  
 -0.0054  
 -0.0000

GRADIENT

CA5  
 -0.0103  
 -0.0100  
 -0.0103  
 -0.0000  
 -0.0000  
 -0.0000

CN5  
 .12647  
 .12258  
 .12711  
 .00008  
 .00000  
 .00000

CLM5  
 .00089  
 .00085  
 .00098  
 .00000  
 .00000  
 .00000

CA6  
 .18813  
 .18234  
 .18907  
 .00012  
 .00017  
 .00017

CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CYN5  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BDFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .900

RN/L = 3.65 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

CNS  
 -0.0051  
 -0.0051  
 -0.0053  
 -0.0053  
 -0.0053  
 -0.0000

GRADIENT

CA5  
 -0.0098  
 -0.0098  
 -0.0101  
 -0.0000  
 -0.0000  
 -0.0000

CN5  
 .12622  
 .12376  
 .12983  
 .00045  
 .00045  
 .00045

CLM5  
 .00083  
 .00083  
 .00086  
 .00000  
 .00000  
 .00000

CA6  
 .18776  
 .18410  
 .19313  
 .00067  
 .00067  
 .00067

CY6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CYN5  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000  
 .00000



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8044) ( 23 AUG 75 )

## REFERENCE DATA

XREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 YREF = 474.6000 IN. YMRP = .0000 IN. YO  
 ZREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = 10.000  
 ELVN-R = 10.000 MACH = .600

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-8.000	.00000	.00049	.00094	.00080	.14978	.22280	.32102	.00000	.00000	.00000
-4.000	.00048	.00092	.00078	.14383	.21395	.30827	.00000	.00000	.00000	.00000
.000	.00047	.00091	.00077	.13418	.19950	.28759	.00000	.00000	.00000	.00000
4.000	.00049	.00093	.00079	.14603	.21731	.31311	.00000	.00000	.00000	.00000
8.000	.00048	.00092	.00078	.16034	.23851	.34365	.00000	.00000	.00000	.00000
GRADIENT	.00000	.00000	.00000	.00028	.00042	.00061	.00000	.00000	.00000	.00000

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-8.000	.00049	.00094	.00079	.15924	.23687	.34129	.00000	.00000	.00000	.00000
-4.000	.00047	.00090	.00076	.14790	.22001	.31699	.00000	.00000	.00000	.00000
.000	.00047	.00089	.00076	.13424	.19369	.28772	.00000	.00000	.00000	.00000
4.000	.00049	.00093	.00079	.15096	.22456	.32355	.00000	.00000	.00000	.00000
8.000	.00048	.00092	.00078	.16001	.23802	.34294	.00000	.00000	.00000	.00000
GRADIENT	.00000	.00000	.00000	.00038	.00057	.00082	.00000	.00000	.00000	.00000

RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-8.000	.00048	.00091	.00077	.15508	.23069	.33238	.00000	.00000	.00000	.00000
-4.000	.00044	.00084	.00071	.14020	.20856	.30050	.00000	.00000	.00000	.00000
.000	.00046	.00087	.00074	.13463	.20026	.28854	.00000	.00000	.00000	.00000
4.000	.00045	.00087	.00074	.14433	.21469	.30933	.00000	.00000	.00000	.00000
8.000	.00048	.00092	.00078	.15283	.22734	.32756	.00000	.00000	.00000	.00000
GRADIENT	.00000	.00000	.00000	.00052	.00077	.00110	.00000	.00000	.00000	.00000

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-8.000	.00046	.00087	.00074	.11888	.17684	.25480	.00000	.00000	.00000	.00000
-4.000	.00042	.00081	.00069	.13805	.20536	.29588	.00000	.00000	.00000	.00000
.000	.00043	.00081	.00069	.13138	.19543	.28158	.00000	.00000	.00000	.00000
4.000	.00046	.00088	.00074	.13916	.20701	.29927	.00000	.00000	.00000	.00000
8.000	.00048	.00091	.00077	.12581	.18714	.26964	.00000	.00000	.00000	.00000
GRADIENT	.00000	.00001	.00001	.00014	.00021	.00030	.00000	.00000	.00000	.00000



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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8D44) ( 23 AUG 75 )

# REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 935.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 55.000  
BDFLAP = 22.500 ELVN-L = 10.000  
ELVN-R = 10.000 MACH = .600

# PARAMETRIC DATA

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
-8.000  
-4.000  
.000  
4.000  
9.000  
GRADIENT

CNS  
-0.0045  
-0.0043  
-0.0045  
-0.0043  
-0.0048  
-0.0000

CA5  
-0.0087  
-0.0082  
-0.0086  
-0.0082  
-0.0092  
-0.0000

CLM5  
.00074  
.00070  
.00073  
.00070  
.00078  
.00000

CNS  
.14942  
.14157  
.13664  
.13617  
.15245  
-0.00067

CA6  
.22226  
.21059  
.20326  
.20256  
.22678  
-0.00100

CLM6  
.32024  
.30342  
.29287  
.29186  
.32675  
-0.00145

CYN5  
.00000  
.00000  
.00000  
.00000  
.00000  
.00000

CYL6  
.00000  
.00000  
.00000  
.00000  
.00000  
.00000

# REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
LREF = 474.8000 IN.  
BREF = 935.6800 IN.  
SCALE = .0300

XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO

RUDDER = .000 SPOBRK = 55.000  
BDFLAP = 22.500 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = .900

# PARAMETRIC DATA

RN/L = 3.64 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNS  
-0.0052  
-0.0052  
-0.0054  
-0.0000

CA5  
-0.00100  
-0.00100  
-0.00103  
-0.00000

CLM5  
.00085  
.00085  
.00097  
.00000

CNS  
.12218  
.11961  
.12509  
.00036

CA6  
.18174  
.17792  
.18607  
.00054

CLM6  
.26186  
.25635  
.26810  
.00078

CYN5  
.00000  
.00000  
.00000  
.00000

CYL6  
.00000  
.00000  
.00000  
.00000

ALPHA = .000

BETA  
-4.000  
.000  
4.000  
GRADIENT

CNS  
-0.0051  
-0.0051  
-0.0053  
-0.00000

CA5  
-0.00098  
-0.00097  
-0.00101  
-0.00000

CLM5  
.00083  
.00082  
.00085  
.00000

CNS  
.12279  
.12110  
.12606  
.00041

CA6  
.18265  
.18015  
.18752  
.00061

CLM6  
.26317  
.25956  
.27019  
.00088

CYN5  
.00000  
.00000  
.00000  
.00000

CYL6  
.00000  
.00000  
.00000  
.00000

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I (GE8D+5) ( 23 AUG 75 )

## REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LEF = 474.6000 IN. YMRP = .0000 IN. Y0  
 REF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 25.000  
 BDFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .900

RN/L = 3.61 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CY5 CLM5 CA5 CYN5 CEL5  
 -.00049 -.00080 -.00094 .00000 .00000  
 -.00049 -.00080 -.00094 .00000 .00000  
 -.00051 -.00083 .00098 .00000 .00000  
 -.00000 .00000 -.00000 -.00003 -.00005

PN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CY5 CLM5 CA5 CYN5 CEL5  
 -.00048 -.00077 -.00091 .00000 .00000  
 -.00048 -.00077 -.00091 .00000 .00000  
 -.00048 -.00078 .00092 .00000 .00000  
 -.00000 .00000 .00000 .00002 .00000

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CY5 CLM5 CA5 CYN5 CEL5  
 -.00051 -.00083 -.00097 .00000 .00000  
 -.00052 -.00084 .00099 .00000 .00000  
 -.00052 -.00085 .00100 .00000 .00000  
 -.00000 .00000 .00000 .00031 .00046

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 675

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(068D46) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .600

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA	-8.000									
	-4.000	-.00049	-.00093	.00079	.14832	.22063	.31789	.00000	.00000	.00000
	.000	-.00046	-.00088	.00075	.13948	.20749	.29895	.00000	.00000	.00000
	4.000	-.00047	-.00089	.00075	.13029	.19381	.27825	.00000	.00000	.00000
	8.000	-.00048	-.00092	.00078	.14233	.21172	.30505	.00000	.00000	.00000
GRADIENT		-.00048	-.00093	.00079	.15631	.23252	.33502	.00000	.00000	.00000
		-.00000	-.00000	.00000	.00036	.00053	.00076	.00000	.00000	.00000

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA	-8.000									
	-4.000	-.00048	-.00091	.00077	.15585	.23184	.33404	.00000	.00000	.00000
	.000	-.00046	-.00089	.00075	.14428	.21462	.30923	.00000	.00000	.00000
	4.000	-.00047	-.00092	.00076	.13390	.19318	.28598	.00000	.00000	.00000
	8.000	-.00048	-.00092	.00078	.14865	.22113	.31861	.00000	.00000	.00000
GRADIENT		-.00047	-.00090	.00077	.15684	.23330	.33615	.00000	.00000	.00000
		-.00000	-.00000	.00000	.00055	.00081	.00117	.00000	.00000	.00000

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA	-8.000									
	-4.000	-.00046	-.00088	.00075	.15225	.22648	.32632	.00000	.00000	.00000
	.000	-.00043	-.00082	.00069	.13901	.20678	.29794	.00000	.00000	.00000
	4.000	-.00044	-.00084	.00071	.12867	.19140	.27577	.00000	.00000	.00000
	8.000	-.00045	-.00085	.00072	.14325	.21309	.30702	.00000	.00000	.00000
GRADIENT		-.00046	-.00085	.00073	.15325	.22796	.32846	.00000	.00000	.00000
		-.00000	-.00000	.00000	.00053	.00079	.00113	.00000	.00000	.00000

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA	-8.000									
	-4.000	-.00045	-.00086	.00073	.12539	.18653	.26876	.00000	.00000	.00000
	.000	-.00045	-.00085	.00073	.13368	.19885	.28651	.00000	.00000	.00000
	4.000	-.00042	-.00080	.00068	.13260	.19725	.28421	.00000	.00000	.00000
	8.000	-.00045	-.00087	.00074	.13960	.20618	.29707	.00000	.00000	.00000
GRADIENT		-.00046	-.00089	.00075	.12476	.18558	.26739	.00000	.00000	.00000
		-.00000	-.00000	.00000	.00062	.00092	.00132	.00000	.00000	.00000

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TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(GE8D46) ( 23 AUG 75 )

REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
REF = 474.8000 IN. YMRP = .0000 IN. YO  
REF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
BDFLAP = 22.500 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = .600

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CAS	CNS	CLM5	CAS	CNS	CLM6	CY6	CYN6	CBL6
-8.000	-0.0087	.00074	.00074	.15435	.22960	.33082	.00000	.00000	.00000
-4.000	-0.0079	.00067	.00067	.13630	.20275	.29213	.00000	.00000	.00000
.000	-0.0083	.00070	.00070	.13134	.19537	.28149	.00000	.00000	.00000
4.000	-0.0078	.00066	.00066	.13246	.19704	.28391	.00000	.00000	.00000
8.000	-0.0087	.00074	.00074	.15451	.22984	.33116	.00000	.00000	.00000
GRADIENT	.00000	-0.00000	-0.00000	-0.00048	-0.00071	-0.00103	.00000	.00000	.00000

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(GE8D47) ( 23 AUG 75 )

REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
REF = 474.8000 IN. YMRP = .0000 IN. YO  
REF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
BDFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = 1.400

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CAS	CNS	CLM5	CAS	CNS	CLM6	CY6	CYN6	CBL6
-4.000	-0.0106	.00090	.00090	.11849	.17366	.25231	.00683	-0.00375	.00240
.000	-0.0101	.00086	.00086	.11866	.17391	.25268	.00684	-0.00375	.00241
4.000	-0.0107	.00090	.00090	.12252	.17957	.26091	.00706	-0.00397	.00248
GRADIENT	-0.00000	.00000	.00000	.00050	.00074	.00107	.00003	-0.00002	.00001

ALPHA = .000

BETA	CAS	CNS	CLM5	CAS	CNS	CLM6	CY6	CYN6	CBL6
-4.000	-0.0106	.00090	.00090	.12096	.17728	.25758	.00697	-0.00382	.00245
.000	-0.0101	.00086	.00086	.11852	.17370	.25238	.00683	-0.00375	.00240
4.000	-0.0106	.00090	.00090	.12314	.18048	.26223	.00709	-0.00389	.00250
GRADIENT	.00000	-0.00000	-0.00000	.00027	.00040	.00058	.00002	-0.00001	.00001

(GE8D47) ( 23 AUG 75 )

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

PARAMETRIC DATA

RUDDER = -10 000 SPDRK = 85.000  
BDFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = 4.000 MACH = 1.400

REFERENCE DATA

SPCF = 2830.000 SL.FT. XMRP = 1075.6900 IN. Y0  
YREF = 474.6000 IN. YMRP = .0000 IN. Y0  
BREF = 935.6900 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CNS	CAS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0050	-0.0095	.0001	.12513	.18339	.2646	.00721	-.00395	.00254
GRADIENT	-0.0053	-0.0102	.0007	.11828	.17335	.25189	.00581	-.00374	.00240
	-0.0055	-0.0105	.0009	.12198	.17878	.25975	.00703	-.00386	.00247
	-0.0001	-0.0001	.0001	-.00039	-.00058	-.00084	-.00002	.00001	-.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CNS	CAS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0051	-0.0098	.0003	.12051	.17582	.25693	.00694	-.00391	.00244
GRADIENT	-0.0053	-0.0101	.0005	.11500	.16954	.24489	.00662	-.00364	.00233
	-0.0057	-0.0109	.0009	.12355	.18109	.26312	.00712	-.00391	.00250
	-0.0001	-0.0001	.0001	.00038	.00056	.00081	.00002	.00001	.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CNS	CAS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0053	-0.0101	.0006	.11775	.17258	.25075	.00678	-.00372	.00239
GRADIENT	-0.0055	-0.0101	.0009	.11584	.16977	.24668	.00667	-.00355	.00235
	-0.0056	-0.0106	.0009	.12142	.17795	.25956	.00699	-.00384	.00245
	-0.0000	-0.0001	.0001	.00046	.00067	.00098	.00003	.00001	.00001

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CNS	CAS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CBL6
BETA	-0.0055	-0.0106	.0009	.12066	.17684	.25695	.00695	-.00382	.00245
GRADIENT	-0.0055	-0.0105	.0009	.12150	.17808	.25874	.00700	-.00384	.00245
	-0.0053	-0.0106	.0009	.12696	.18901	.27462	.00743	-.00408	.00261
	-0.0001	-0.0001	.0001	.00104	.00152	.00221	.00006	.00003	.00002

13 MAY 76

REPORTED FORCE DATA - CA:48 ( AMES 11-073-1 )

FORCE DATA - DATA 1, WIND 11, ONE  
 DATA 2 - 11.2, 11.8, 12.8 VERTICAL T. BASE INCREMENTS 1

150-5048) ( 23 AUG 75 )

BASE-ERIC DATA

RUDDER	=	-10.000	SPDBRK	=	85.000
BOFLAP	=	15.300	ELVN-L	=	4.000
ELVN-2	=	4.000	MACH	=	1.250

## REFERENCE DATA

299.000	50. FT.	XMAP	=	1076.6800	IN.	X0
299.000	1".	YMAP	=	.0000	IN.	Y0
299.000	925.6800	ZMAP	=	375.0000	IN.	Z0
299.000	.0000		=			

14-00000

CASE	CASE	CNS	CLPE
-00108	00000	1485	21830
-00109	00000	1523	22281
-00110	00000	1549	22322
-00111	00000	0000	00047
-00112	00000	0000	00000
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-00117	.00039	.12833	.13115
-00125	.00039	.11118	.13092
-00001	.0001	.00122	.00178

[illegible]

REFERENCE DATA

SREF = 2630.000 SQ.FT.

LREF = 474.900 IN.

BREF = 936.600 IN.

SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000

BDFLAP = 16.300

ELVN-R = 4.000

SPCBK = 65.000

ELVN-L = 4.000

MACH = 1.100

RN/L = 3.19

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CNS	CAS	CLMS	CNS	CAS	CLMS	CY6	CY45	CBL6
BETA = -4.000	-0.0085	-0.0152	.00137	.16996	.24895	.36172	.00979	-.00537	.03344
GRADIENT =	-0.0087	-0.0167	.00141	.16704	.24481	.35570	.00952	-.00528	.00339
	-0.0087	-0.0166	.00141	.16997	.24911	.36155	.00979	-.00537	.00345
	-0.0000	-0.0001	.00000	.00001	.00002	.00003	.00000	-.00000	.00000

RN/L = 3.20

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 0.00	CNS	CAS	CLMS	CNS	CAS	CLMS	CY6	CY45	CBL6
BETA = -4.000	-0.0059	-0.0131	.00111	.16008	.25534	.37481	.00927	-.00509	.03326
GRADIENT =	-0.0074	-0.0141	.00119	.15249	.24349	.36472	.00878	-.00482	.00359
	-0.0079	-0.0150	.00127	.15511	.22890	.33243	.00893	-.00494	.00316
	-0.0001	-0.0002	.00002	-.00001	-.00003	-.00130	-.00004	.00002	-.00001

RN/L = 3.19

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CNS	CAS	CLMS	CNS	CAS	CLMS	CY6	CY45	CBL6
BETA = 4.000	-0.0054	-0.0123	.00104	.14269	.20912	.30395	.00822	-.00451	.03289
GRADIENT =	-0.0059	-0.0131	.00111	.13428	.19580	.28594	.00774	-.00426	.00272
	-0.0071	-0.0136	.00115	.13584	.19910	.28938	.00783	-.00430	.00275
	-0.0001	-0.0002	.00001	-.00005	-.00125	-.00102	-.00005	.00003	-.00002

RN/L = 3.20

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CNS	CAS	CLMS	CNS	CAS	CLMS	CY6	CY45	CBL6
BETA = 8.000	-0.0054	-0.0122	.00103	.14330	.21003	.30516	.00826	-.00453	.03290
GRADIENT =	-0.0070	-0.0135	.00114	.14601	.21399	.31092	.00841	-.00462	.00286
	-0.0074	-0.0141	.00120	.14830	.21735	.31580	.00854	-.00469	.00301
	-0.0001	-0.0002	.00002	.00002	.00002	.00172	.00004	.00002	.00001

RN/L = 3.19

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CNS	CAS	CLMS	CNS	CAS	CLMS	CY6	CY45	CBL6
BETA = 12.000	-0.0055	-0.0126	.00107	.15015	.22006	.31974	.00855	-.00475	.03304
GRADIENT =	-0.0072	-0.0138	.00117	.15282	.22398	.32543	.00860	-.00483	.00310
	-0.0074	-0.0142	.00121	.15215	.22300	.32401	.00877	-.00481	.00308
	-0.0001	-0.0002	.00002	.00025	.00337	.00053	.00001	-.00001	.00001

DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

**PAGE 680**

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(GFECSO) 1 23 AUG 75 )

### REFERENCE DATA

SPEC	=	2690.0000	SQ.FT.	XMRP	=	1076.6900	IN.	XO
LCC	=	474.8000	IN.	YMRP	=	.0000	IN.	YO
BSE	=	935.6900	IN.	ZMRP	=	375.0000	IN.	ZO
SPCRK	=	.0000						
RUDER	=	-10.000						
BDFLAP	=	16.300						
ELVN-L	=	4.000						
MACH	=							
SPCRK	=	85.000						
ELVN-L	=	4.000						
MACH	=							
ELVN-R	=	.0000						

### PARAMETRIC DATA

R<sup>2</sup>/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

R <sup>2</sup> /L =	3.58	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

$P.V. = 3.59$  GRADIENT INTERVAL = -5.00/ 5.00

	CY6	CY7	CY8	CY9	CY10	CY11	CY12	CY13	CY14	CY15	CY16	CY17	CY18	CY19	CY20	CY21	CY22	CY23	CY24	CY25	CY26	CY27	CY28	CY29	CY30	CY31	CY32	CY33	CY34	CY35	CY36	CY37	CY38	CY39	CY40	CY41	CY42	CY43	CY44	CY45	CY46	CY47	CY48	CY49	CY50	CY51	CY52	CY53	CY54	CY55	CY56	CY57	CY58	CY59	CY60	CY61	CY62	CY63	CY64	CY65	CY66	CY67	CY68	CY69	CY70	CY71	CY72	CY73	CY74	CY75	CY76	CY77	CY78	CY79	CY80	CY81	CY82	CY83	CY84	CY85	CY86	CY87	CY88	CY89	CY90	CY91	CY92	CY93	CY94	CY95	CY96	CY97	CY98	CY99	CY100	CY101	CY102	CY103	CY104	CY105	CY106	CY107	CY108	CY109	CY110	CY111	CY112	CY113	CY114	CY115	CY116	CY117	CY118	CY119	CY120	CY121	CY122	CY123	CY124	CY125	CY126	CY127	CY128	CY129	CY130	CY131	CY132	CY133	CY134	CY135	CY136	CY137	CY138	CY139	CY140	CY141	CY142	CY143	CY144	CY145	CY146	CY147	CY148	CY149	CY150	CY151	CY152	CY153	CY154	CY155	CY156	CY157	CY158	CY159	CY160	CY161	CY162	CY163	CY164	CY165	CY166	CY167	CY168	CY169	CY170	CY171	CY172	CY173	CY174	CY175	CY176	CY177	CY178	CY179	CY180	CY181	CY182	CY183	CY184	CY185	CY186	CY187	CY188	CY189	CY190	CY191	CY192	CY193	CY194	CY195	CY196	CY197	CY198	CY199	CY200	CY201	CY202	CY203	CY204	CY205	CY206	CY207	CY208	CY209	CY210	CY211	CY212	CY213	CY214	CY215	CY216	CY217	CY218	CY219	CY220	CY221	CY222	CY223	CY224	CY225	CY226	CY227	CY228	CY229	CY230	CY231	CY232	CY233	CY234	CY235	CY236	CY237	CY238	CY239	CY240	CY241	CY242	CY243	CY244	CY245	CY246	CY247	CY248	CY249	CY250	CY251	CY252	CY253	CY254	CY255	CY256	CY257	CY258	CY259	CY260	CY261	CY262	CY263	CY264	CY265	CY266	CY267	CY268	CY269	CY270	CY271	CY272	CY273	CY274	CY275	CY276	CY277	CY278	CY279	CY280	CY281	CY282	CY283	CY284	CY285	CY286	CY287	CY288	CY289	CY290	CY291	CY292	CY293	CY294	CY295	CY296	CY297	CY298	CY299	CY300	CY301	CY302	CY303	CY304	CY305	CY306	CY307	CY308	CY309	CY310	CY311	CY312	CY313	CY314	CY315	CY316	CY317	CY318	CY319	CY320	CY321	CY322	CY323	CY324	CY325	CY326	CY327	CY328	CY329	CY330	CY331	CY332	CY333	CY334	CY335	CY336	CY337	CY338	CY339	CY340	CY341	CY342	CY343	CY344	CY345	CY346	CY347	CY348	CY349	CY350	CY351	CY352	CY353	CY354	CY355	CY356	CY357	CY358	CY359	CY360	CY361	CY362	CY363	CY364	CY365	CY366	CY367	CY368	CY369	CY370	CY371	CY372	CY373	CY374	CY375	CY376	CY377	CY378	CY379	CY380	CY381	CY382	CY383	CY384	CY385	CY386	CY387	CY388	CY389	CY390	CY391	CY392	CY393	CY394	CY395	CY396	CY397	CY398	CY399	CY400	CY401	CY402	CY403	CY404	CY405	CY406	CY407	CY408	CY409	CY410	CY411	CY412	CY413	CY414	CY415	CY416	CY417	CY418	CY419	CY420	CY421	CY422	CY423	CY424	CY425	CY426	CY427	CY428	CY429	CY430	CY431	CY432	CY433	CY434	CY435	CY436	CY437	CY438	CY439	CY440	CY441	CY442	CY443	CY444	CY445	CY446	CY447	CY448	CY449	CY450	CY451	CY452	CY453	CY454	CY455	CY456	CY457	CY458	CY459	CY460	CY461	CY462	CY463	CY464	CY465	CY466	CY467	CY468	CY469	C
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RMSE =	3.58	COEFFICIENT : INTERVAL =	-5.09/ 5.09
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[illegible]

R^2/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I (GE9351) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6900 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA  
 RUDDER = -10.000 SPDRK = 85.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = 4.000 MACH = .500

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RV/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

CN5  
 -.00053  
 -.00051  
 -.00051  
 -.00053  
 -.00052  
 -.00000

CAS  
 -.00102  
 -.00098  
 -.00097  
 -.00101  
 -.00100  
 -.00000

CLM5  
 .00086  
 .00084  
 .00093  
 .00085  
 .00085  
 .00000

CN6  
 .1492  
 .13048  
 .13042  
 .13876  
 .15029  
 .00104

CA6  
 .21239  
 .19123  
 .19114  
 .20338  
 .22027  
 .00152

CLM6  
 .30960  
 .27785  
 .27772  
 .23550  
 .32004  
 .00221

CY6  
 .00935  
 .00752  
 .00751  
 .00739  
 .00365  
 .00006

CY5  
 -.00458  
 -.00413  
 -.00412  
 -.00433  
 -.00475  
 -.00003

BL6  
 .00294  
 .00264  
 .00264  
 .00281  
 .00305  
 .00002

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CN5  
 -.00053  
 -.00050  
 -.00049  
 -.00051  
 -.00050  
 -.00000

CAS  
 -.00100  
 -.00096  
 -.00094  
 -.00098  
 -.00095  
 -.00000

CLM5  
 .00095  
 .00081  
 .00080  
 .00083  
 .00081  
 .00000

CN6  
 .14471  
 .13824  
 .13748  
 .14493  
 .15437  
 .00084

CA6  
 .21209  
 .20261  
 .20149  
 .21241  
 .22625  
 .00122

CLM6  
 .30916  
 .29439  
 .29275  
 .30562  
 .32873  
 .00178

CY6  
 .00934  
 .00785  
 .00782  
 .00835  
 .00889  
 .00035

CY5  
 -.00458  
 -.00437  
 -.00435  
 -.00458  
 -.00488  
 -.00003

BL6  
 .00293  
 .00280  
 .00279  
 .00294  
 .00313  
 .00002

ALPHA = 4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RV/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

CN5  
 -.00051  
 -.00049  
 -.00047  
 -.00047  
 -.00048  
 .00000

CAS  
 -.00098  
 -.00094  
 -.00091  
 -.00089  
 -.00092  
 .00001

CLM5  
 .00083  
 .00090  
 .00077  
 .00076  
 .00078  
 -.00000

CN6  
 .14917  
 .13980  
 .13361  
 .14887  
 .15565  
 .00113

CA5  
 .21862  
 .20489  
 .19583  
 .21818  
 .22813  
 .00166

CLM6  
 .31765  
 .29770  
 .28453  
 .31701  
 .33147  
 .00241

CY6  
 .00659  
 .00855  
 .00770  
 .00659  
 .00837  
 .00007

CY5  
 -.00472  
 -.00442  
 -.00422  
 -.00471  
 -.00432  
 -.00004

BL6  
 .00302  
 .00283  
 .00271  
 .00302  
 .00315  
 .00002

ALPHA = 8.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RV/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

CN5  
 -.00048  
 -.00048  
 -.00046  
 -.00048  
 -.00047  
 -.00000

CAS  
 -.00091  
 -.00091  
 -.00087  
 -.00092  
 -.00090  
 -.00000

CLM5  
 .00078  
 .00077  
 .00074  
 .00078  
 .00076  
 .00000

CN6  
 .13852  
 .13835  
 .13337  
 .14107  
 .12551  
 .00034

CA5  
 .20302  
 .20277  
 .19547  
 .20575  
 .18395  
 .00053

CLM6  
 .29498  
 .29462  
 .28401  
 .30240  
 .26728  
 .00272

CY6  
 .00739  
 .00797  
 .00765  
 .00813  
 .00733  
 .00002

CY5  
 -.00438  
 -.00437  
 -.00422  
 -.00446  
 -.00397  
 -.00001

BL6  
 .00281  
 .00280  
 .00270  
 .00286  
 .00254  
 .00001



(GE8052) ( 23 AUG 75 )

## REFERENCE DATA

52EF	=	2690.0000	50.FT.	XMRP	=	1076.6800	IN.	X0
LPEF	=	474.8000	IN.	YMRP	=	.0000	IN.	Y0
8REF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	Z0
SCALE	=	.0300						

### PARAMETRIC DATA

RUDDER =	-10.000	SPDBRK =	55.000
BDGLAP =	16.300	ELVN-L =	-4.000
ELVN-R =	4.000	MACH =	1.400

RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA	=	+ .000	CM5	CAS	CLM5	CNS	CAB	CLM5	CY5	CYN5	CSL6
		BETA									
		1.000	- .00050	- .00096	.00081	.10659	.15864	.22859	.00360	-.00195	-.00126
		.000	- .00050	- .00096	.00081	.10895	.16215	.23366	.00368	-.00129	
		4.000	- .00053	- .00102	.00086	.11077	.16486	.23755	.00374	-.00131	
		GRADIENT	- .00030	- .00001	.00001	.00052	.00078	.00112	.00002	-.00001	.00001

RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA =	B.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN5	CCL6
BETA	-4.000	-.00050	-.00097	.00082	.10734	.15975	.23020	.00363	-.00195	.00127
	.000	-.00051	-.00097	.00083	.10853	.16153	.23276	.00367	-.00199	.00128
	4.000	-.00053	-.00101	.00085	.11015	.16394	.23623	.00372	-.00202	.00130
GRADIENT	.00000	-.00000	-.00001	.00000	.00035	.00052	.00075	.00001	-.00001	.00000

RN/L =	2.92	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA	=	12.0000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
			-4.000	-0.0051	-0.0097	-0.0093	10743	15989	23040	00363	-00197	00127
			0.000	-0.0051	-0.0097	-0.0082	10857	16159	23285	00367	-00199	00128
			4.000	-0.0053	-0.0101	-0.0086	11093	16510	23790	00375	-00203	00131
		GRADIENT		-0.0000	-0.0004	-0.0000	00044	00065	00034	00001	-00001	00001

RN/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

DATE 03 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(GE8D53) ( 23 AUG 75 )

## REFERENCE DATA

REF = 2593.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 REF = 474.8000 IN. YMRP = .0000 IN. YO  
 REF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDERK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = 1.250

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS  
 -0.0063  
 -0.0065  
 -0.0068  
 -0.0001  
 CANS  
 -0.00121  
 -0.00124  
 -0.00129  
 -0.00001  
 CLM5  
 .00103  
 .00105  
 .00110  
 .00001  
 CN6  
 .12826  
 .12836  
 .14069  
 .00155  
 CAB  
 .19089  
 .19104  
 .20839  
 .00231  
 CLM6  
 .27507  
 .27528  
 .30173  
 .00333  
 CY6  
 .00434  
 .00434  
 .00476  
 .00005  
 CYN6  
 -.00235  
 -.00235  
 -.00257  
 -.00003  
 CBL6  
 .00151  
 .00152  
 .00165  
 .00002

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS  
 -0.0060  
 -0.0064  
 -0.0067  
 -0.0001  
 CANS  
 -0.00115  
 -0.00122  
 -0.00129  
 -0.00002  
 CLM5  
 .00099  
 .00103  
 .00109  
 .00001  
 CN6  
 .12980  
 .12993  
 .14174  
 .00149  
 CAB  
 .19319  
 .19338  
 .21095  
 .00222  
 CLM6  
 .27638  
 .27656  
 .30397  
 .00320  
 CY6  
 .00439  
 .00439  
 .00479  
 .00005  
 CYN6  
 -.00238  
 -.00238  
 -.00259  
 -.00003  
 CBL6  
 .00153  
 .00153  
 .00167  
 .00002

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS  
 -0.0055  
 -0.0057  
 -0.0059  
 -0.0001  
 CANS  
 -0.00105  
 -0.00108  
 -0.00113  
 -0.00001  
 CLM5  
 .00089  
 .00092  
 .00096  
 .00001  
 CN6  
 .13066  
 .12820  
 .13290  
 .00028  
 CAB  
 .19447  
 .19081  
 .19780  
 .00042  
 CLM6  
 .28023  
 .27495  
 .28503  
 .00060  
 CY6  
 .00442  
 .00433  
 .00449  
 .00001  
 CYN6  
 -.00239  
 -.00235  
 -.00243  
 -.00001  
 CBL6  
 .00154  
 .00151  
 .00157  
 .00000

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS  
 -0.0056  
 -0.0056  
 -0.0060  
 -0.0001  
 CANS  
 -0.00107  
 -0.00107  
 -0.00115  
 -0.00001  
 CLM5  
 .00091  
 .00091  
 .00097  
 .00001  
 CN6  
 .13035  
 .12656  
 .13002  
 -.00004  
 CAB  
 .19401  
 .18851  
 .19352  
 -.00006  
 CLM6  
 .27956  
 .27163  
 .27885  
 -.00009  
 CY6  
 .00441  
 .00428  
 .00440  
 -.00000  
 CYN6  
 -.00239  
 -.00232  
 -.00238  
 .00000  
 CBL6  
 .00154  
 .00150  
 .00153  
 -.00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CAS  
 -0.0057  
 -0.0056  
 -0.0060  
 -0.0000  
 CANS  
 -0.00109  
 -0.00108  
 -0.00115  
 -0.00001  
 CLM5  
 .00092  
 .00092  
 .00098  
 .00001  
 CN6  
 .12854  
 .12625  
 .12806  
 -.00006  
 CAB  
 .19131  
 .18790  
 .19059  
 -.00009  
 CLM6  
 .27567  
 .27076  
 .27464  
 -.00013  
 CY6  
 .00435  
 .00427  
 .00433  
 -.00000  
 CYN6  
 -.00235  
 -.00231  
 -.00234  
 .00000  
 CBL6  
 .00152  
 .00149  
 .00151  
 -.00000



DATE 03 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8D55) ( 23 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = -10.000 SPCBRK = 55.000  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = -4.000  
 SREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 4.000 MACH = .900  
 SCALE = .0300

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
-4.000	-4.000	-.00048	-.00033	.00079	.11208	.16682	.24038	.00379	-.00205	.00132
.000	.000	-.00049	-.00094	.00080	.11305	.16825	.24245	.00382	-.00207	.00133
.000	.000	-.00048	-.00092	.00078	.11364	.19593	.28233	.00445	-.00241	.00155
GRADIENT	GRADIENT	.00000	.00000	-.00000	.00245	.00364	.00524	.00008	-.00004	.00003

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
.000	-4.000	-.00047	-.00030	.00077	.11404	.16972	.24457	.00386	-.00209	.00135
.000	.000	-.00046	-.00088	.00074	.11762	.17074	.24634	.00388	-.00210	.00135
.000	.000	-.00047	-.00089	.00075	.11422	.19702	.28330	.00448	-.00242	.00155
GRADIENT	GRADIENT	.00000	.00000	-.00000	.00229	.00341	.00492	.00008	-.00004	.00003

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
4.000	-4.000	-.00045	-.00087	.00074	.11432	.17059	.24581	.00388	-.00210	.00135
.000	.000	-.00046	-.00088	.00074	.11764	.17509	.25229	.00398	-.00215	.00139
.000	.000	-.00045	-.00086	.00073	.12009	.17874	.25755	.00406	-.00220	.00142
GRADIENT	GRADIENT	.00000	.00000	-.00000	.00068	.00102	.00147	.00002	-.00001	.00001

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
8.000	-4.000	-.00045	-.00085	.00072	.11502	.17268	.24883	.00392	-.00212	.00137
.000	.000	-.00045	-.00086	.00073	.11895	.17705	.25512	.00402	-.00218	.00140
.000	.000	-.00043	-.00082	.00070	.11877	.17676	.25471	.00402	-.00217	.00140
GRADIENT	GRADIENT	.00000	.00000	-.00000	.00034	.00051	.00073	.00001	-.00001	.00000

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
12.000	-4.000	-.00046	-.00088	.00075	.12246	.18226	.26263	.00414	-.00224	.00145
.000	.000	-.00045	-.00085	.00072	.12611	.18770	.27047	.00426	-.00231	.00149
.000	.000	-.00044	-.00085	.00072	.13029	.19392	.27943	.00441	-.00238	.00154
GRADIENT	GRADIENT	.00000	.00000	-.00000	.00098	.00146	.00210	.00003	-.00002	.00001



DATE 13 MAY 76

TABULATED FORCE DATA - OA148 ( AMES 11-073-1 )

PAGE 688

OA148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8056) ( 23 AUG 75 )

## REFERENCE DATA

CREP = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 935.6800 IN.  
 SCALE = .0300

ALPHA = 12.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = 4.000 MACH = .600

CNS	CA5	CLM5	CNS	CA6	CLM6	CY6	CYN6	CBL6
- .00043	- .00082	.00070	.15010	.22341	.32192	.00507	-.00275	.00177
- .00040	- .00076	.00064	.13236	.19700	.28387	.00448	-.00242	.00156
- .00040	- .00077	.00066	.13409	.19956	.28757	.00453	-.00245	.00158
- .00039	- .00073	.00062	.12624	.19086	.27532	.00434	-.00235	.00151
- .00042	- .00080	.00068	.14177	.21101	.30405	.00479	-.00259	.00167
.00000	.00000	-.00000	-.00052	-.00077	-.00111	-.00002	.00001	-.00001

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 935.6800 IN.  
 SCALE = .0300

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.400

CNS	CA5	CLM5	CNS	CA6	CLM6	CY6	CYN6	CBL6
- .00054	- .00103	.00088	.10741	.15986	.23036	-.00363	.00197	.00127
- .00053	- .00101	.00085	.10450	.15553	.22411	-.00353	.00191	.00123
- .00050	- .00096	.00082	.10823	.16108	.23211	-.00366	.00198	.00128
.00000	.00001	-.00001	.00010	.00015	.00022	-.00000	.00000	-.00000

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.400

CNS	CA5	CLM5	CNS	CA6	CLM6	CY6	CYN6	CBL6
- .00055	- .00104	.00088	.10763	.16019	.23082	-.00364	.00197	.00127
- .00052	- .00100	.00085	.10568	.15729	.22665	-.00357	.00193	.00125
- .00051	- .00098	.00083	.11072	.16478	.23745	-.00374	.00203	.00131
.00000	.00001	-.00001	.00039	.00057	.00083	-.00001	.00001	-.00000



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(069057) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CAS	CNS	CLM5	CNS	CAS	CLM5	CNS	CLM5	CNS	CY6	CYN5	CBL6
BETA	-4.000	-0.0052	-0.0100	-0.0085	-0.0100	-0.0085	-0.0100	-0.0085	-0.0100	-0.00369	-0.00200	-0.00129
BETA	-4.000	-0.0049	-0.0094	-0.0080	-0.0094	-0.0080	-0.0094	-0.0080	-0.0094	-0.00356	-0.00193	-0.00124
BETA	-4.000	-0.0050	-0.0096	-0.0081	-0.0096	-0.0081	-0.0096	-0.0081	-0.0096	-0.00368	-0.00199	-0.00129
GRADIENT	4.000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	-0.00000	.00000

RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CAS	CNS	CLM5	CNS	CAS	CLM5	CNS	CLM5	CNS	CY6	CYN5	CBL6
BETA	-4.000	-0.0052	-0.0100	-0.0085	-0.0100	-0.0085	-0.0100	-0.0085	-0.0100	-0.00371	-0.00201	-0.00130
BETA	-4.000	-0.0051	-0.0097	-0.0082	-0.0097	-0.0082	-0.0097	-0.0082	-0.0097	-0.00359	-0.00194	-0.00125
BETA	-4.000	-0.0051	-0.0097	-0.0082	-0.0097	-0.0082	-0.0097	-0.0082	-0.0097	-0.00374	-0.00202	-0.00131
GRADIENT	4.000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	-0.00000	-0.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CAS	CNS	CLM5	CNS	CAS	CLM5	CNS	CLM5	CNS	CY6	CYN5	CBL6
BETA	-4.000	-0.0054	-0.0103	-0.0087	-0.0103	-0.0087	-0.0103	-0.0087	-0.0103	-0.00380	-0.00206	-0.00133
BETA	-4.000	-0.0052	-0.0099	-0.0084	-0.0099	-0.0084	-0.0099	-0.0084	-0.0099	-0.00366	-0.00198	-0.00128
BETA	-4.000	-0.0051	-0.0097	-0.0083	-0.0097	-0.0083	-0.0097	-0.0083	-0.0097	-0.00369	-0.00200	-0.00129
GRADIENT	4.000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	-0.00001	-0.00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000	CAS	CNS	CLM5	CNS	CAS	CLM5	CNS	CLM5	CNS	CY6	CYN5	CBL6
BETA	-4.000	-0.0055	-0.0105	-0.0089	-0.0105	-0.0089	-0.0105	-0.0089	-0.0105	-0.00394	-0.00213	-0.00138
BETA	-4.000	-0.0054	-0.0104	-0.0089	-0.0104	-0.0089	-0.0104	-0.0089	-0.0104	-0.00381	-0.00206	-0.00133
BETA	-4.000	-0.0056	-0.0106	-0.0090	-0.0106	-0.0090	-0.0106	-0.0090	-0.0106	-0.00417	-0.00225	-0.00145
GRADIENT	4.000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	-0.00002	-0.00000

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I (0E8D58) ( 23 AUG 75 )

## REFERENCE DATA

SPREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

XMRP = 1076.6900 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000 SPCBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = 4.000  
 ELVN-R = -4.000 MACH = 1.250

## PARAMETRIC DATA

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CAS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CE-5
BETA	-00120	.00102	.13437	.19258	.28817	-.00454	.00246	-.00159
-4.000	-00109	.00093	.12258	.18244	.26289	-.00414	.00224	-.00145
.000	-00108	.00092	.12541	.18665	.26895	-.00424	.00229	-.00148
4.000	.00002	-.00001	-.00112	-.00167	-.00240	.00004	-.00002	.00001
GRADIENT								

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CAS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CE-5
BETA	-00117	.00099	.13687	.20370	.29353	-.00463	.00250	-.00162
-4.000	-00106	.00090	.12462	.18548	.26727	-.00421	.00228	-.00147
.000	-00107	.00090	.12956	.19298	.27808	-.00438	.00237	-.00153
4.000	.00001	-.00001	-.00090	-.00134	-.00193	.00003	-.00002	.00001
GRADIENT								

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CAS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CE-5
BETA	-00058	.00093	.12945	.19266	.27761	-.00438	.00237	-.00153
-4.000	-00056	.00091	.12801	.19052	.27453	-.00433	.00234	-.00151
.000	-00056	.00091	.13552	.20169	.29063	-.00458	.00248	-.00160
4.000	.00000	-.00000	.00076	.00113	.00163	-.00003	.00001	-.00001
GRADIENT								

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CAS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CE-5
BETA	-00058	.00094	.12644	.18818	.27117	-.00427	.00231	-.00149
-4.000	-00055	.00091	.12729	.18945	.27299	-.00430	.00233	-.00150
.000	-00057	.00092	.13727	.20430	.29439	-.00464	.00251	-.00162
4.000	.00000	-.00000	.00135	.00201	.00290	-.00005	.00002	-.00002
GRADIENT								

RN/L = 3.01 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CAS	CLM5	CNS	CAS	CLM6	CY6	CYN6	CE-5
BETA	-00059	.00096	.12188	.18140	.26139	-.00412	.00223	-.00144
-4.000	-00058	.00094	.12893	.19190	.27652	-.00436	.00236	-.00152
.000	-00058	.00093	.14145	.21052	.30336	-.00478	.00259	-.00157
4.000	.00000	-.00000	.00245	.00354	.00525	-.00008	.00004	-.00003
GRADIENT								

REFERENCE DATA

SPRF = 2630.0000 SQ.FT.

LREF = 474.8000 IN.

BREF = 936.6000 IN.

SCALE = .0300

CM5

CA5

CLM5

CN5

1076.6000 IN. XO

.0000 IN. YO

375.0000 IN. ZO

RUDDER = 10.000

BDFLAP = 16.300

ELVN-R = -4.000

SPOBRK = 55.000

ELVN-L = 4.000

MACH = 1.100

PARAMETRIC DATA

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = -4.000	CM5	CA5	CLM5	CN5	CA6	CLM6	CY6	CYN6	CBL6
BETA -4.000	-0.0075	-0.0143	.00121	.16312	.24278	.34984	-0.0552	.00298	-0.0193
.000	-0.0067	-0.0127	.00108	.14743	.21942	.31618	-0.0498	.00270	-0.0174
.000	-0.0064	-0.0123	.00104	.15006	.22334	.32352	-0.0507	.00275	-0.0177
GRADIENT .00001	.00003	.00003	-0.00002	-0.00163	-0.00243	-0.00350	.00006	-0.00003	.00002
RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = .000	CM5	CA5	CLM5	CN5	CA6	CLM6	CY6	CYN6	CBL6
BETA -4.000	-0.0070	-0.0134	.00114	.15586	.23197	.33427	-0.0527	.00255	-0.0184
.000	-0.0063	-0.0121	.00102	.14652	.21807	.31424	-0.0495	.00268	-0.0173
.000	-0.0062	-0.0118	.00100	.14532	.21628	.31165	-0.0491	.00265	-0.0172
GRADIENT .00001	.00002	.00002	-0.00002	-0.00132	-0.00195	-0.00293	.00004	-0.00002	.00002
RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 4.000	CM5	CA5	CLM5	CN5	CA6	CLM6	CY6	CYN6	CBL6
BETA -4.000	-0.0055	-0.0125	.00106	.14983	.22300	.32133	-0.0507	.00274	-0.0177
.000	-0.0052	-0.0119	.00101	.14690	.21864	.31505	-0.0497	.00269	-0.0173
.000	-0.0050	-0.0114	.00097	.14425	.21469	.30937	-0.0488	.00264	-0.0170
GRADIENT .00001	.00001	.00001	-0.00001	-0.00070	-0.00104	-0.00150	.00002	-0.00001	.00001
RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 8.000	CM5	CA5	CLM5	CN5	CA6	CLM6	CY6	CYN6	CBL6
BETA -4.000	-0.0066	-0.0126	.00107	.15171	.22579	.32536	-0.0513	.00278	-0.0179
.000	-0.0062	-0.0119	.00101	.14644	.21795	.31406	-0.0495	.00269	-0.0173
.000	-0.0062	-0.0118	.00100	.14433	.21481	.30953	-0.0488	.00264	-0.0170
GRADIENT .00001	.00001	.00001	-0.00001	-0.00092	-0.00137	-0.00198	.00003	-0.00002	.00001
RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00									
ALPHA = 12.000	CM5	CA5	CLM5	CN5	CA6	CLM6	CY6	CYN6	CBL6
BETA -4.000	-0.0066	-0.0125	.00106	.15334	.22823	.32987	-0.0518	.00281	-0.0181
.000	-0.0063	-0.0121	.00103	.14905	.22183	.31965	-0.0504	.00273	-0.0176
.000	-0.0064	-0.0122	.00103	.14458	.21519	.31008	-0.0489	.00265	-0.0171
GRADIENT .00000	.00000	.00000	-0.00000	-0.00109	-0.00163	-0.00235	.00004	-0.00002	.00001

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

DATE 23 MAY 76

( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

REFERENCE DATA

REF = 2630 0000 SQ.FT. XMRP = 1076.6900 IN. XO RUDDER = 10.000 SPDRK = 55.000  
 CREF = 474.8000 IN. YMRP = .0000 IN. YO BDFLAP = 16.300 ELVN-L = 4.000  
 SPREF = 936 6900 IN. ZMRP = 375.0000 IN. ZO ELVN-R = -4.000 MACH = .900  
 SCALE = .0300

PARAMETRIC DATA

RM/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 GRADIENT  
 CAS  
 CLM5  
 CLM6  
 CYN5  
 CYN6  
 CY6  
 CBL5  
 CBL6

RM/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 GRADIENT  
 CAS  
 CLM5  
 CLM6  
 CYN5  
 CYN6  
 CY6  
 CBL5  
 CBL6

RM/L = 3.56 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 GRADIENT  
 CAS  
 CLM5  
 CLM6  
 CYN5  
 CYN6  
 CY6  
 CBL5  
 CBL6

RM/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 GRADIENT  
 CAS  
 CLM5  
 CLM6  
 CYN5  
 CYN6  
 CY6  
 CBL5  
 CBL6

RM/L = 3.55 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 GRADIENT  
 CAS  
 CLM5  
 CLM6  
 CYN5  
 CYN6  
 CY6  
 CBL5  
 CBL6

TABULATED FORCE DATA - CA148 (AMES 11-073-1)  
CA148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

PARAMETRIC DATA  
RUDDER = 10.000 SPOBRK = 55.000  
BDFLAP = 16.300 ELVN-L = 4.000  
ELVN-R = -4.000 MACH = .500

REFERENCE DATA

SREF = 2692.0000 SQ.FT.  
XMRP = 1076.6800 IN. XO  
YMRP = .0000 IN. YO  
ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 0.00	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN5	CEL5
BETA = 0.00	-0.0045	-0.0086	.00073	.14299	.21282	.30667	-.00483	-.00262	-.00169
-0.000	-0.0043	-0.0083	.00070	.14011	.20853	.30049	-.00474	-.00256	-.00165
0.000	-0.0045	-0.0087	.00074	.12990	.19334	.27859	-.00439	-.00239	-.00153
4.000	-0.0045	-0.0086	.00073	.13137	.19552	.28173	-.00444	-.00240	-.00155
8.000	-0.0045	-0.0085	.00073	.13986	.20815	.29984	-.00473	-.00255	-.00165
GRADIENT	-0.00000	-0.00000	.00000	-.00109	-.00163	-.00234	.00004	-.00002	0.00001

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 0.00	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN5	CEL5
BETA = 0.00	-0.0044	-0.0084	.00071	.14030	.20882	.30030	-.00474	-.00257	-.00166
-0.000	-0.0043	-0.0082	.00069	.13333	.20728	.29092	-.00471	-.00255	-.00164
0.000	-0.0044	-0.0085	.00072	.13264	.19741	.28447	-.00448	-.00243	-.00157
4.000	-0.0045	-0.0086	.00073	.13628	.20283	.29227	-.00461	-.00249	-.00161
8.000	-0.0045	-0.0085	.00072	.14497	.21577	.31092	-.00490	-.00265	-.00171
GRADIENT	-0.00000	-0.00001	.00000	-.00038	-.00057	-.00082	.00001	-.00001	0.00000

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN5	CEL5
BETA = 0.000	-0.0041	-0.0079	.00057	.13746	.20459	.29481	-.00465	-.00252	-.00162
-0.000	-0.0040	-0.0076	.00054	.12707	.18912	.27251	-.00430	-.00233	-.00150
0.000	-0.0042	-0.0080	.00058	.12970	.19304	.27817	-.00439	-.00237	-.00153
4.000	-0.0043	-0.0082	.00059	.13650	.20316	.29275	-.00462	-.00250	-.00161
8.000	-0.0044	-0.0084	.00071	.14116	.21009	.30273	-.00477	-.00259	-.00167
GRADIENT	-0.00000	-0.00001	.00001	.00118	.00176	.00253	-.00004	-.00002	0.00001

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 9.000	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN5	CEL5
BETA = 0.000	-0.0040	-0.0077	.00055	.11144	.16586	.23900	-.00377	-.00204	-.00132
-0.000	-0.0039	-0.0075	.00054	.12253	.18235	.26278	-.00414	-.00224	-.00145
0.000	-0.0039	-0.0074	.00053	.12932	.19247	.27734	-.00437	-.00237	-.00153
4.000	-0.0044	-0.0084	.00071	.13056	.19431	.28303	-.00441	-.00239	-.00154
8.000	-0.0043	-0.0082	.00069	.12349	.18393	.26485	-.00418	-.00225	-.00146
GRADIENT	-0.00001	-0.00001	.00001	.00149	.00149	.00215	-.00003	0.00002	0.00001









CA148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1 (GE8D64) ( 23 AUG 75 )

## REFERENCE DATA

SEEF	=	2990.0000	SO.FT.	XMRP	=	1078.6900	IN.	XO
LEEF	=	477.0000	IN.	YMRP	=	0.0000	IN.	YO
SEEF	=	956.0000	IN.	ZMRP	=	375.0000	IN.	ZO
SORE	=							

### PARAMETRIC DATA

RUDDER =	5.000	SPDRK =	55.000
BDFLAP =	16.300	ELVN-L =	-4.000
ELVN-R =	-4.000	MACH =	1.100

RM: L =	3.19	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

ROUL =	3.19	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA =	BETA	CN5	CA5	CLM5	CA6	CLM6	CY6	CY5	CLB6
.000		-.0066	-.00126	.0097	.15635		-.00262		
-.0000	-.0000	-.0051	-.00117	.00393	.23260	.3515		.00142	-.00032
.000	.000	-.0061	-.00117	.0000	.21136	.30454	-.00238	.00039	-.00063
.0000000	.0000000	-.0000	-.0000	.0000	.22834	.38865	-.00257	.00000	-.00000
.0000000	.0000000	-.0000	-.0000	-.0000	-.00004	-.00079	.00000	.00000	.00000

PNL = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

	C4:5	C4:5	CLM:5	C4:5	C4:6	CLM:6	C4:6	C4:5	CEL:5
1	-0.0023	-0.0120	.00102	.15398	.22908	.3008	-.00258	.0140	-0.0090
2	-0.0062	-0.0118	.00100	.13757	.20457	.29490	-.00231	.0125	-0.0081
3	-0.0060	-0.0114	.00097	.14454	.21503	.30883	-.00242	.0131	-0.0065
4	-0.0020	-0.0091	-.00031	-.00118	-.00176	-.02553	.00002	-.0001	-.0001

RM/L =	3.20	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

PV-L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

DATE 03 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8065) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ. FT.  
 LREF = 474.8000 IN.  
 BREF = 936.5000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

## PARAMETRIC DATA

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CAS	CLM5	CN5	CAS	CN5	CLM6	CY6	CYN5	CBL6
BETA									
-4.000	-0.0048	0.0077	0.12658	0.18832	0.27135	-0.00212	-0.00115	-0.00074	
0.000	-0.0047	0.0077	0.11387	0.16940	0.24409	-0.00191	-0.00102	-0.00057	
4.000	-0.0047	0.0076	0.11709	0.17420	0.25099	-0.00196	-0.00106	-0.00059	
GRADIENT	0.0000	-0.0000	-0.00119	-0.00177	-0.00254	0.00002	-0.00001	0.00001	

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 0.000	CAS	CLM5	CN5	CAS	CN5	CLM6	CY6	CYN5	CBL6
BETA									
-4.000	-0.0046	0.0075	0.12634	0.18796	0.27082	-0.00212	-0.00115	-0.00074	
0.000	-0.0046	0.0075	0.11189	0.16546	0.23984	-0.00188	-0.00102	-0.00056	
4.000	-0.0045	0.0074	0.11690	0.17377	0.25037	-0.00196	-0.00106	-0.00058	
GRADIENT	0.0000	-0.0000	-0.00119	-0.00177	-0.00256	0.00002	-0.00001	0.00001	

RN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CAS	CLM5	CN5	CAS	CN5	CLM6	CY6	CYN5	CBL6
BETA									
-4.000	-0.0043	0.0070	0.11930	0.17749	0.25573	-0.00200	-0.00108	-0.00070	
0.000	-0.0045	0.0073	0.11253	0.16742	0.24123	-0.00189	-0.00102	-0.00056	
4.000	-0.0044	0.0071	0.11487	0.17089	0.24623	-0.00193	-0.00104	-0.00057	
GRADIENT	0.0000	0.0000	-0.00055	-0.00082	-0.00119	0.00001	-0.00001	0.00000	

PN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CAS	CLM5	CN5	CAS	CN5	CLM6	CY6	CYN5	CBL6
BETA									
-4.000	-0.0042	0.0068	0.12103	0.18006	0.25944	-0.00203	-0.00110	-0.00071	
0.000	-0.0043	0.0071	0.11164	0.16609	0.23931	-0.00187	-0.00101	-0.00055	
4.000	-0.0042	0.0066	0.11442	0.17023	0.24528	-0.00192	-0.00104	-0.00057	
GRADIENT	0.0000	0.0000	-0.00083	-0.00123	-0.00177	0.00001	-0.00001	0.00000	

PN/L = 3.57 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000	CAS	CLM5	CN5	CAS	CN5	CLM6	CY6	CYN5	CBL6
BETA									
-4.000	-0.0044	0.0072	0.12969	0.19295	0.27801	-0.00218	-0.00118	-0.00075	
0.000	-0.0044	0.0072	0.11989	0.17836	0.25699	-0.00201	-0.00109	-0.00070	
4.000	-0.0044	0.0072	0.12839	0.19101	0.27522	-0.00215	-0.00117	-0.00075	
GRADIENT	0.0000	-0.0000	-0.00016	-0.00024	-0.00035	0.00000	-0.00000	0.00000	

DATE 08 MAY 78

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(GE806S) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-8.000	-0.0045	-0.0086	0.0073	.14766	.21969	.31654	-.00248	.00134	-.00035
-4.000	-0.0043	-0.0082	0.0069	.14412	.21442	.30895	-.00242	.00131	-.00034
.000	-0.0044	-0.0084	0.0072	.13145	.19556	.28178	-.00220	.00119	-.00077
4.000	-0.0045	-0.0085	0.0073	.13592	.20221	.29135	-.00228	.00123	-.00090
8.000	-0.0043	-0.0082	0.0069	.14812	.22036	.31752	-.00248	.00134	-.00087
GRADIENT	-0.0000	-0.0001	0.0001	-.00103	-.00153	-.00220	.00002	-.00001	.00001

RN/L = 4.81 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-8.000	-0.0043	-0.0082	0.0070	.14938	.22224	.32022	-.00251	.00136	-.00097
-4.000	-0.0042	-0.0081	0.0069	.14160	.21067	.30355	-.00237	.00129	-.00093
.000	-0.0043	-0.0083	0.0070	.13311	.19803	.28533	-.00223	.00121	-.00079
4.000	-0.0044	-0.0083	0.0071	.14080	.20947	.30182	-.00236	.00128	-.00032
8.000	-0.0043	-0.0083	0.0070	.15100	.22465	.32369	-.00253	.00137	-.00099
GRADIENT	-0.0000	-0.0000	0.0000	-.00010	-.00015	-.00022	.00000	-.00000	.00000

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-8.000	-0.0042	-0.0080	0.0068	.14414	.21445	.30899	-.00242	.00131	-.00034
-4.000	-0.0040	-0.0076	0.0064	.12942	.19254	.27743	-.00217	.00117	-.00016
.000	-0.0041	-0.0079	0.0067	.13167	.19590	.28226	-.00221	.00120	-.00017
4.000	-0.0042	-0.0083	0.0068	.13644	.20299	.29248	-.00229	.00124	-.00030
8.000	-0.0041	-0.0079	0.0067	.14462	.21515	.31000	-.00243	.00131	-.00035
GRADIENT	-0.0000	-0.0001	0.0000	.00088	.00131	.00188	-.00001	.00001	-.00001

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA	CN5	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-8.000	-0.0040	-0.0076	0.0065	.11056	.16449	.23701	-.00185	.00100	-.00055
-4.000	-0.0041	-0.0078	0.0066	.12681	.18665	.27182	-.00213	.00115	-.00014
.000	-0.0038	-0.0072	0.0061	.12980	.19311	.27825	-.00218	.00118	-.00016
4.000	-0.0043	-0.0082	0.0069	.13723	.20416	.29417	-.00230	.00125	-.00030
8.000	-0.0041	-0.0079	0.0067	.12369	.18402	.25515	-.00237	.00112	-.00012
GRADIENT	-0.0000	-0.0001	0.0000	.00130	.00194	.00279	-.00002	.00001	-.00001

DATE 13 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(068D66) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA	CAS	CNS	CLM5	CLM6	CY6	CYN6	CEL6
-8.000	-1.0002	.14596	.00069	.31287	-.00245	.00132	-.00095
-4.000	-.00035	.13010	.00059	.27888	-.00218	.03118	-.00075
.000	-.00039	.12890	.00063	.27831	-.00216	.00117	-.00075
4.000	-.00038	.12707	.00061	.27240	-.00213	.00115	-.00074
8.000	-.00061	.15500	.00064	.33226	-.00260	.00141	-.00091
GRADIENT	-.00000	-.00038	.00000	-.00091	.00001	-.00000	.00000

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I

(068D67) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA	CAS	CNS	CLM5	CLM6	CY6	CYN6	CEL6
-4.000	-.00096	.11666	.00082	.25003	.00000	.00000	.00000
.000	-.00092	.11143	.00078	.23883	.00000	.00000	.00000
4.000	-.00097	.11827	.00082	.25349	.00000	.00000	.00000
GRADIENT	-.00000	.00020	.00000	.00043	.00000	.00000	.00000

RN/L = 3.62 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA	CAS	CNS	CLM5	CLM6	CY6	CYN6	CEL6
-4.000	-.00094	.12215	.00079	.26179	.00000	.00000	.00000
.000	-.00094	.11496	.00080	.24638	.00000	.00000	.00000
4.000	-.00096	.12126	.00082	.25989	.00000	.00000	.00000
GRADIENT	-.00000	-.00011	.00000	-.00024	.00000	.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS I (GE8067) 23 AUG 75 )

## REFERENCE DATA

SPEF = 2630.0000 SQ. FT.  
 LREF = 474.9000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BOFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .900

RN/L = 3.60 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 4.000  
 GRADIENT

CAS5 CAS6 CN5 CLM5 CLM6 CLY5 CLY6 CBL6  
 -.00047 -.00090 .11861 .00077 .25422 .00000 .00000 .00000  
 -.00048 -.00092 .11581 .00078 .24821 .00000 .00000 .00000  
 -.00047 -.00090 .11791 .00077 .25272 .00000 .00000 .00000  
 -.00000 -.00000 -.00009 -.00013 -.00019 .00000 .00000 .00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 4.000  
 GRADIENT

CAS5 CAS6 CN5 CLM5 CLM6 CLY5 CLY6 CBL6  
 -.00046 -.00088 .12190 .00075 .26127 .00000 .00000 .00000  
 -.00048 -.00092 .11617 .00079 .24898 .00000 .00000 .00000  
 -.00043 -.00091 .12160 .00077 .25083 .00000 .00000 .00000  
 -.00000 -.00000 -.00004 -.00006 -.00009 .00000 .00000 .00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 4.000  
 GRADIENT

CAS5 CAS6 CN5 CLM5 CLM6 CLY5 CLY6 CBL6  
 -.00048 -.00092 .13064 .00078 .28000 .00000 .00000 .00000  
 -.00049 -.00094 .12195 .00079 .26138 .00000 .00000 .00000  
 -.00048 -.00092 .12863 .00078 .27782 .00000 .00000 .00000  
 -.00000 -.00000 -.00013 -.00019 -.00027 .00000 .00000 .00000

DATE 08 MAY 76

TABULATED FORCE DATA - CA148 ( AMES 11-073-1 )

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OA148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

(GE8068) ( 23 AUG 75 )

# REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 REF = 474.8000 IN. YMRP = .0000 IN. YO  
 REF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

# PARAMETRIC DATA

RUDDER = .000 SPDBFA = 55.000  
 BDFLAP = 22.500 ELVN-L = -4.000  
 ELVN-R = -4.000 MACH = .600

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA	-0.0047	-0.0089	.00076	.14873	.22124	.31879	.00000	.00000	.00000
-8.000	-0.0047	-0.0089	.00076	.14130	.21018	.30284	.00000	.00000	.00000
-4.000	-0.0047	-0.0089	.00076	.13414	.19354	.28750	.00000	.00000	.00000
.000	-0.0047	-0.0089	.00076	.14372	.21379	.30803	.00000	.00000	.00000
4.000	-0.0048	-0.0092	.00078	.15329	.22803	.32855	.00000	.00000	.00000
8.000	-0.0046	-0.0089	.00075	.00030	.00045	.00065	.00000	.00000	.00000
GRADIENT	-0.00000	-0.00000	.00000	.00030	.00045	.00065	.00000	.00000	.00000

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA	-0.0047	-0.0089	.00076	.15543	.23121	.33314	.00000	.00000	.00000
-8.000	-0.0047	-0.0087	.00074	.14657	.21603	.31414	.00000	.00000	.00000
-4.000	-0.0045	-0.0087	.00074	.13498	.20079	.28931	.00000	.00000	.00000
.000	-0.0047	-0.0090	.00076	.14840	.22075	.31807	.00000	.00000	.00000
4.000	-0.0046	-0.0089	.00074	.15745	.23421	.33745	.00000	.00000	.00000
8.000	-0.0046	-0.0090	.00074	.00023	.00034	.00049	.00000	.00000	.00000
GRADIENT	-0.00000	-0.00000	.00000	.00023	.00034	.00049	.00000	.00000	.00000

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA	-0.0046	-0.0087	.00074	.15393	.22898	.32992	.00000	.00000	.00000
-8.000	-0.0045	-0.0085	.00072	.14098	.20971	.30215	.00000	.00000	.00000
-4.000	-0.0045	-0.0086	.00073	.13244	.19701	.28385	.00000	.00000	.00000
.000	-0.0046	-0.0087	.00074	.14222	.21156	.30482	.00000	.00000	.00000
4.000	-0.0045	-0.0085	.00072	.15370	.22853	.32941	.00000	.00000	.00000
8.000	-0.0045	-0.0086	.00073	.00016	.00023	.00033	.00000	.00000	.00000
GRADIENT	-0.00000	-0.00000	.00000	.00016	.00023	.00033	.00000	.00000	.00000

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA	-0.0044	-0.0085	.00072	.12821	.19072	.27479	.00000	.00000	.00000
-8.000	-0.0044	-0.0085	.00072	.13823	.20562	.29626	.00000	.00000	.00000
-4.000	-0.0042	-0.0080	.00058	.12837	.19095	.27512	.00000	.00000	.00000
.000	-0.0045	-0.0086	.00073	.13852	.20505	.28689	.00000	.00000	.00000
4.000	-0.0044	-0.0084	.00071	.12809	.19054	.27453	.00000	.00000	.00000
8.000	-0.0044	-0.0085	.00071	.00004	.00005	.00008	.00000	.00000	.00000
GRADIENT	-0.00000	-0.00000	.00000	.00004	.00005	.00008	.00000	.00000	.00000

DATE 08 MAY 76 TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

(GE8068) ( 23 AUG 75 )

0A148 -140 A/B/C/R VERTICAL T. BASE INCREMENTS 1

REFERENCE DATA

SPREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = .000 SPOBRK = 55.000  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO BDFLAP = 22.500 ELVN-L = -4.000  
 BREF = 936.6500 IN. ZMRP = 375.0000 IN. ZO ELVN-R = -4.000 MACH = .600  
 SCALE = .0300

PARAMETRIC DATA

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00046	-.00089	.00075	.16020	.23830	.34335	.00000	.00000	.00000
-.00043	-.00082	.00069	.17547	.20151	.29034	.00000	.00000	.00000
-.00043	-.00083	.00070	.13025	.19375	.27917	.00000	.00000	.00000
-.00041	-.00079	.00067	.13300	.19784	.28505	.00000	.00000	.00000
-.00046	-.00089	.00075	.15693	.23344	.34635	.00000	.00000	.00000
.00000	.00000	-.00000	-.00031	-.00046	-.00066	.00000	.00000	.00000

REFERENCE DATA

SPREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = .000 SPOBRK = 55.000  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO BDFLAP = 22.500 ELVN-L = -10.000  
 BREF = 936.6500 IN. ZMRP = 375.0000 IN. ZO ELVN-R = -10.000 MACH = .900  
 SCALE = .0300

PARAMETRIC DATA

RN/L = 3.63 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00049	-.00094	.00080	.11497	.17103	.24642	.00000	.00000	.00000
-.00047	-.00090	.00076	.11376	.16923	.24383	.00000	.00000	.00000
-.00049	-.00094	.00080	.12029	.17894	.25782	.00000	.00000	.00000
.00000	.00000	.00000	.00066	.00099	.00142	.00000	.00000	.00000

REFERENCE DATA

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00049	-.00093	.00079	.12338	.18353	.26443	.00000	.00000	.00000
-.00048	-.00091	.00077	.11569	.17209	.24796	.00000	.00000	.00000
-.00048	-.00091	.00077	.12142	.18061	.26023	.00000	.00000	.00000
.00000	.00000	-.00000	-.00025	-.00036	-.00053	.00000	.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

(GE8069) ( 23 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 REF = 474.8000 IN. YMRP = .0000 IN. Y0  
 REF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUDTER = .000 SPDSPK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .900

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5 CA5 CLM5 CN6 CA6 CLM6 CY6 CYN6 CBL6  
 -.00047 -.00091 -.00077 .11927 .17741 .25562 .00000 .00000 .00000  
 -.00048 -.00092 -.00078 .11704 .17409 .25094 .00000 .00000 .00000  
 -.00046 -.00088 -.00075 .11765 .17501 .25215 .00000 .00000 .00000  
 .00000 .00000 -.00000 -.00020 -.00030 -.00043 .00000 .00000 .00000

RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5 CA5 CLM5 CN6 CA6 CLM6 CY6 CYN6 CBL6  
 -.00046 -.00097 -.00074 .12041 .17912 .25808 .00000 .00000 .00000  
 -.00049 -.00091 -.00077 .11656 .17339 .24983 .00000 .00000 .00000  
 -.00046 -.00089 -.00075 .11801 .17554 .25233 .00000 .00000 .00000  
 .00000 .00000 -.00000 -.00030 -.00045 -.00064 .00000 .00000 .00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5 CA5 CLM5 CN6 CA6 CLM6 CY6 CYN6 CBL6  
 -.00048 -.00092 -.00078 .12683 .18867 .27184 .00000 .00000 .00000  
 -.00049 -.00093 -.00079 .12208 .18161 .26166 .00000 .00000 .00000  
 -.00049 -.00093 -.00079 .12577 .18708 .26955 .00000 .00000 .00000  
 .00000 .00000 -.00000 -.00013 -.00020 -.00029 .00000 .00000 .00000



DATE 09 MAY 76 TABULATED FORCE DATA - 04148 ( AMES 11-073-1 )

(068070) ( 23 AUG 75 )

PARAMETRIC DATA

RUDDER = .000 SPOBRV = 55.000  
BDFLAP = 22.500 ELVN-L = -10.000  
ELVN-R = -10.000 MACH = .600

REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
BETA  
-8.000  
-4.000  
0.000  
4.000  
8.000  
GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00046	-.00088	.00075	.14031	.20871	.30072	.00000	.00000	.00000
-.00047	-.00089	.00076	.13656	.20314	.29269	.00000	.00000	.00000
-.00047	-.00091	.00077	.13327	.19825	.28564	.00000	.00000	.00000
-.00048	-.00093	.00077	.14397	.21416	.30857	.00000	.00000	.00000
-.00046	-.00093	.00074	.14395	.22336	.32139	.00000	.00000	.00000
-.00000	-.00000	.00000	.00093	.30138	.00199	.00000	.00000	.00000

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
BETA  
-8.000  
-4.000  
0.000  
4.000  
8.000  
GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00047	-.00089	.00076	.15251	.22686	.32687	.00000	.00000	.00000
-.00046	-.00088	.00075	.14240	.21182	.30519	.00000	.00000	.00000
-.00046	-.00093	.00075	.13524	.20117	.28386	.00000	.00000	.00000
-.00045	-.00095	.00072	.14484	.21746	.31044	.00000	.00000	.00000
-.00045	-.00095	.00072	.15460	.22597	.33135	.00000	.00000	.00000
.00000	.00000	-.00000	.00031	.00045	.00066	.00000	.00000	.00000

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
BETA  
-8.000  
-4.000  
0.000  
4.000  
8.000  
GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00047	-.00089	.00076	.15212	.22629	.32605	.00000	.00000	.00000
-.00044	-.00084	.00071	.14018	.20853	.30045	.00000	.00000	.00000
-.00044	-.00084	.00071	.13116	.19510	.28111	.00000	.00000	.00000
-.00044	-.00084	.00071	.13971	.20783	.29944	.00000	.00000	.00000
-.00045	-.00085	.00072	.14931	.22300	.32130	.00000	.00000	.00000
.00000	.00000	-.00000	-.00006	-.00003	-.00013	.00000	.00000	.00000

RN/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
BETA  
-8.000  
-4.000  
0.000  
4.000  
8.000  
GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00046	-.00087	.00074	.13177	.19501	.28241	.00000	.00000	.00000
-.00044	-.00084	.00071	.13800	.20528	.29577	.00000	.00000	.00000
-.00044	-.00084	.00071	.12841	.19101	.27522	.00000	.00000	.00000
-.00045	-.00085	.00073	.14035	.20878	.30081	.00000	.00000	.00000
-.00044	-.00085	.00072	.13123	.19521	.28126	.00000	.00000	.00000
-.00000	-.00000	.00000	.00029	.00044	.00063	.00000	.00000	.00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

(CEBD70) ( 23 AUG 75 )

## REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 SREF = 936.6600 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPCERK = 55.000  
 BDFLAP = 22.500 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

RN/L = 4.84 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CNS  
 CA5  
 CLM5  
 CN6  
 CA6  
 CYN6  
 CY6  
 CLM6  
 CYN5  
 CY6  
 CEL6

0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

(CEBD71) ( 23 AUG 75 )

## REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 SREF = 936.6600 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPCERK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 CA5  
 CLM5  
 CN6  
 CA6  
 CYN6  
 CY6  
 CLM6  
 CYN5  
 CY6  
 CEL6

ALPHA = .000

BETA

-4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 CA5  
 CLM5  
 CN6  
 CA6  
 CYN6  
 CY6  
 CLM6  
 CYN5  
 CY6  
 CEL6

DATE 08 MAY 76

TABULATED FORCE DATA - 0.148 ( AMES 11-073-1 )

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(GE8071) ( 23 AUG 75 )

## REFERENCE DATA

SPEF = 2690.000 SQ.FT.  
 LREF = 474.800 IN.  
 BREF = 936.600 IN.  
 SCALE = .0300

YMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = -5.000 SPDRK = 55.000  
 BOFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.400

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00053  
 -.00052  
 -.00053  
 .00000

CAS  
 -.00101  
 -.00099  
 -.00100  
 .00000

CLM5  
 .00086  
 .00084  
 .00085  
 -.00000

CN6  
 .11124  
 .11074  
 .11295  
 .00021

CA6  
 .16550  
 .16476  
 .16805  
 .00032

CLM6  
 .23846  
 .23739  
 .24214  
 .00046

CY6  
 .00187  
 .00186  
 .00189  
 .00000

CYN6  
 -.00101  
 -.00101  
 -.00103  
 -.00000

CBL6  
 .00065  
 .00065  
 .00065  
 .00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00053  
 -.00052  
 -.00053  
 -.00000

CAS  
 -.00101  
 -.00100  
 -.00102  
 -.00000

CLM5  
 .00096  
 .00065  
 .00087  
 .00000

CN6  
 .11075  
 .11159  
 .11467  
 .00049

CA6  
 .16477  
 .16301  
 .17061  
 .00073

CLM6  
 .23741  
 .23320  
 .24582  
 .00105

CY6  
 .00186  
 .00187  
 .00192  
 .00001

CYN6  
 -.00101  
 -.00101  
 -.00104  
 -.00000

CBL6  
 .00065  
 .00065  
 .00067  
 .00000

RN/L = 2.91 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00053  
 -.00052  
 -.00054  
 -.00000

CAS  
 -.00102  
 -.00100  
 -.00103  
 -.00000

CLM5  
 .00087  
 .00085  
 .00087  
 .00000

CN6  
 .11079  
 .11078  
 .11403  
 .00040

CA6  
 .16482  
 .16480  
 .16964  
 .00060

CLM6  
 .23749  
 .23746  
 .24443  
 .00087

CY6  
 .00186  
 .00186  
 .00191  
 .00001

CYN6  
 -.00101  
 -.00101  
 -.00103  
 -.00000

CBL6  
 .00065  
 .00065  
 .00067  
 .00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 16.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00055  
 -.00054  
 -.00056  
 -.00000

CAS  
 -.00105  
 -.00104  
 -.00107  
 -.00000

CLM5  
 .00089  
 .00088  
 .00091  
 .00000

CN6  
 .11533  
 .11556  
 .11604  
 .00009

CA6  
 .17156  
 .17252  
 .17263  
 .00013

CLM6  
 .24723  
 .24858  
 .24874  
 .00019

CY6  
 .00193  
 .00194  
 .00195  
 .00000

CYN6  
 -.00105  
 -.00105  
 -.00105  
 -.00000

CBL6  
 .00068  
 .00068  
 .00068  
 .00000



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS (GE8073) ( 23 AUG 75 )

## REFERENCE DATA

REF = 2890.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 REF = 474.8000 IN. YMRP = .0000 IN. YO  
 REF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUCDER = -5.000 SPDGRX = 55.000  
 BDFLAP = .6300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = 1.100

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00065  
 -.00064  
 -.00073  
 -.00001

CAS  
 -.00126  
 -.00122  
 -.00140  
 -.00002

CNS  
 .15290  
 .14809  
 .16076  
 .00098

CAS  
 .227-7  
 .2232  
 .23917  
 .00146

CY6  
 .00255  
 .00246  
 .00270  
 .00002

CYNE  
 -.00139  
 -.00134  
 -.00146  
 -.00001

CBL6  
 .00000  
 .00000  
 .00004  
 .00001

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00064  
 -.00061  
 -.00070  
 -.00001

CAS  
 -.00122  
 -.00117  
 -.00133  
 -.00001

CNS  
 .15200  
 .14648  
 .15607  
 .00051

CAS  
 .22614  
 .21792  
 .23219  
 .00076

CY6  
 .00255  
 .00246  
 .00262  
 .00001

CYNS  
 -.00139  
 -.00133  
 -.00142  
 -.00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00061  
 -.00061  
 -.00067  
 -.00001

CAS  
 -.00116  
 -.00117  
 -.00128  
 -.00001

CNS  
 .14713  
 .14073  
 .14632  
 -.00008

CAS  
 .21688  
 .20935  
 .21798  
 -.00011

CY6  
 .00247  
 .00235  
 .00246  
 -.00003

CYNS  
 -.00134  
 -.00128  
 -.00133  
 .00000

CBL6  
 .00000  
 .00000  
 .00000  
 -.00000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00053  
 -.00053  
 -.00059  
 -.00001

CAS  
 -.00120  
 -.00120  
 -.00130  
 -.00001

CNS  
 .14648  
 .14207  
 .15315  
 .00083

CAS  
 .21792  
 .21137  
 .22765  
 .00124

CY6  
 .00245  
 .00235  
 .00257  
 .00001

CYNS  
 -.00133  
 -.00129  
 -.00139  
 -.00001

CBL6  
 .00000  
 .00000  
 .00000  
 .00000

RN/L = 3.18 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS  
 -.00064  
 -.00055  
 -.00069  
 -.00001

CAS  
 -.00122  
 -.00123  
 -.00131  
 -.00001

CNS  
 .15070  
 .14565  
 .15248  
 .00027

CAS  
 .22350  
 .21713  
 .22695  
 .00041

CY6  
 .00252  
 .00245  
 .00255  
 .00000

CYNS  
 -.00136  
 -.00132  
 -.00138  
 -.00000

CBL6  
 .00000  
 .00000  
 .00000  
 .00000



DATE 08 MAY 76

TABULATED ... E

- 0A148 ( AMES 11-073-1 )

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(GE8075) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 ELVN-L = -10.000  
 ELVN-R = -10.000 MACH = .600

4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CN5  
 -0.0044  
 -0.0044  
 -0.0044  
 -0.0044  
 -0.0042  
 -0.0040

CA5  
 -0.0085  
 -0.0083  
 -0.0085  
 -0.0084  
 -0.0081  
 -0.0080

CLM5  
 .00072  
 .00071  
 .00072  
 .00071  
 .00069  
 .00060

CN6  
 .14142  
 .13604  
 .13442  
 .14450  
 .14665  
 .00106

CA6  
 .21039  
 .20239  
 .20147  
 .21497  
 .21818  
 .00157

CLM6  
 .30315  
 .29162  
 .29030  
 .30975  
 .31436  
 .00227

CY6  
 .00237  
 .00228  
 .00227  
 .00242  
 .00246  
 .00002

CYN6  
 -.00128  
 -.00123  
 -.00123  
 -.00131  
 -.00133  
 -.00001

CBL6  
 .00083  
 .00080  
 .00079  
 .00085  
 .00086  
 .00001

RN/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CN5  
 -0.0045  
 -0.0045  
 -0.0044  
 -0.0043  
 -0.0041  
 -0.0000

CA5  
 -0.0085  
 -0.0086  
 -0.0085  
 -0.0083  
 -0.0079  
 .00000

CLM5  
 .00072  
 .00073  
 .00072  
 .00070  
 .00067  
 -.00000

CN6  
 .14950  
 .13875  
 .13588  
 .14338  
 .14647  
 .00058

CA6  
 .22242  
 .20642  
 .20215  
 .21332  
 .21791  
 .00086

CLM6  
 .32048  
 .29743  
 .29127  
 .30736  
 .31398  
 .00124

CY6  
 .00251  
 .00233  
 .00228  
 .00240  
 .00246  
 .00001

CYN6  
 -.00136  
 -.00126  
 -.00123  
 -.00130  
 -.00133  
 -.00001

CBL6  
 .00088  
 .00081  
 .00080  
 .00084  
 .00086  
 .00000

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CN5  
 -0.0045  
 -0.0043  
 -0.0041  
 -0.0041  
 -0.0041  
 .00000

CA5  
 -0.0085  
 -0.0082  
 -0.0078  
 -0.0078  
 -0.0078  
 .00000

CLM5  
 .00072  
 .00070  
 .00066  
 .00067  
 .00066  
 -.00000

CN6  
 .14733  
 .13509  
 .12994  
 .13455  
 .14130  
 -.00007

CA6  
 .21918  
 .20098  
 .19332  
 .20018  
 .21022  
 -.00010

CLM6  
 .31582  
 .28958  
 .27854  
 .28843  
 .30289  
 -.00014

CY6  
 .00247  
 .00227  
 .00218  
 .00226  
 .00237  
 -.00000

CYN6  
 -.00134  
 -.00123  
 -.00118  
 -.00122  
 -.00128  
 .00000

CBL6  
 .00086  
 .00079  
 .00076  
 .00079  
 .00083  
 -.00000

RN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -8.000  
 -4.000  
 .000  
 4.000  
 8.000  
 GRADIENT

CN5  
 -0.0041  
 -0.0042  
 -0.0039  
 -0.0041  
 -0.0041  
 .00000

CA5  
 -0.0078  
 -0.0080  
 -0.0075  
 -0.0078  
 -0.0079  
 .00000

CLM5  
 .00067  
 .00065  
 .00064  
 .00066  
 .00067  
 -.00000

CN6  
 .13144  
 .13379  
 .12907  
 .13363  
 .11994  
 -.00002

CA6  
 .19554  
 .19904  
 .19202  
 .19881  
 .17844  
 -.00003

CLM6  
 .28175  
 .28679  
 .27668  
 .28646  
 .25711  
 -.00004

CY6  
 .00220  
 .00224  
 .00216  
 .00224  
 .00201  
 -.00000

CYN6  
 -.00119  
 -.00121  
 -.00117  
 -.00121  
 -.00109  
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CBL6  
 .00077  
 .00078  
 .00076  
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 -.00000

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(GE8075) ( 23 AUG 75 )

00148 -140 A/B/C VERTICAL T. BASE INCREMENTS I

## REFERENCE DATA

SCRF	=	2690.0000	SO.FT.	=	XMRP	=	1076.6800	IN.	XO
YMRP	=	474.8000	IN.	=	YMRP	=	.0000	IN.	YO
SCRF	=	936.6800	IN.	=	ZMRP	=	375.0000	IN.	ZO
SCALE	=	.0300							

GRN/L = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

## PREFERENCE DATA

=	2690.0000	SQ.FT.	XMRP	=	1076.6800	IN. X0
=	474.8000	IN.	YMRP	=	.0000	IN. Y0
=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
=	.0300	SCALE				

RV/L =	2.91	GRADIENT INTERVAL =	-5.00/	5.00
--------	------	---------------------	--------	------

RUDDER	=	-10.000	SPDBRK	=	.000
BDFLAP	=	-11.700	ELVN-L	=	10.000
ELVN-R	=	-10.000	MACH	=	1.400

### PARAMETRIC DATA

(GE8D76) ( 23 AUG 75 )

0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS I

ALPHA	=	-4.000	BETA	-4.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
					-0.0050	-0.0095	.00081	.08539	.12348	.17556	.00019	-0.0010	.00007
					-0.0050	-0.0095	.00081	.08613	.12456	.17709	.00020	-0.0011	.00007
					-0.0050	-0.0095	.00082	.09501	.13739	.19534	.00022	-0.0012	.00008
					-0.0000	-0.0000	.00000	.00120	.00174	.00247	.00000	-0.0000	.00000
					-0.0000	-0.0000	.00000	.00120	.00174	.00247	.00000	-0.0000	.00000

RN/1	=	2.91	GRADIENT INTERVAL	=	-5.00/	5.00
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ALPHA	=	.000	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
BETA											
-4.000		-.00050	-.00095	.00081	.08410	.12162	.17291	.00019	-.00010	.00007	
.000		-.00050	-.00096	.00082	.08801	.12728	.18096	.00020	-.00011	.00007	
4.000		-.00052	-.00099	.00084	.09363	.14408	.20484	.00023	-.00012	.00008	
GRADIENT		-.00000	-.00000	.00000	.00194	.00281	.00399	.00000	-.00000	.00000	



OA148 -140 A/B/C VERTICAL T. BASE INCREMENT'S I (GE8D76) ( 23 AUG 75 )

## REFERENCE DATA

SREF	=	2690 .0000 SQ.FT.
LREF	=	474 .8000 IN.
BREF	=	936 .8800 IN.
SCALE	=	.0300
XMRP	=	1076 .6800 IN. XO
YMRP	=	.0000 IN YO
ZMRP	=	375 .0000 IN ZO
RUDDER	=	-10 .000
BOFLAP	=	-11 .700
ELVN-R	=	-10 .000
MACH	=	.
SPDRBK	=	.000
ELVN-L	=	10 .000
MACH	=	1 .400

## PARAMETRIC DATA

RN/L =	2.92	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

RN/L =	2.92	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

RN/L =	2.92	GRADIENT INTERVAL =	-5.00/	5.00
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ALPHA	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
12.000	-4.000	-0.0047	-0.0090	-0.0077	-0.9254	-1.3382	.1926	.00021	-.00011	.00007
	0.000	-0.0050	-0.0035	-0.0081	.09821	.13914	.19781	.00022	-.00012	.00008
	4.000	-0.0049	-0.0094	-0.0080	.10312	.14913	.21202	.00024	-.00013	.00008
GRADIENT		-0.0000	-0.0000	-0.0000	.00132	.00191	.02272	.00000	-.00000	.00000

RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
16.000	-4.000	-0.0009	-0.0095	-0.0080	0.0505	0.1391	19749	0.0022	-0.0012	-0.0008
	0.000	-0.0052	-0.0100	-0.0085	0.1013	0.1624	20792	0.0023	-0.0012	-0.0008
	4.000	-0.0053	-0.0102	-0.0086	0.11362	0.23401	16459	0.0026	-0.0014	-0.0009
GRADIENT		-0.00000	-0.00001	-0.00001	0.0222	0.0321	0.0456	0.0031	-0.0000	-0.0000

DATE ( 3 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS I

(0E8D77) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2890.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6900 IN.  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.250

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00055  
 -.00056  
 -.00056  
 -.00056  
 -.00000

CA5  
 -.00104  
 -.00106  
 -.00108  
 -.00000

CLM5  
 .00089  
 .00090  
 .00091  
 .00000

CN6  
 .09609  
 .10343  
 .11594  
 .00248

CA6  
 .13896  
 .14957  
 .16767  
 .00359

CLM6  
 .19756  
 .21266  
 .23839  
 .00510

CY6  
 .00022  
 .00024  
 .00026  
 .00001

CYN6  
 -.00012  
 -.00013  
 -.00014  
 -.00000

CBL6  
 .00008  
 .00008  
 .00009  
 .00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00054  
 -.00054  
 -.00055  
 -.00000

CA5  
 -.00102  
 -.00104  
 -.00106  
 -.00000

CLM5  
 .00087  
 .00088  
 .00090  
 .00000

CN6  
 .10193  
 .10739  
 .12058  
 .00234

CA6  
 .14741  
 .15530  
 .17452  
 .00339

CLM6  
 .20958  
 .22060  
 .24812  
 .00482

CY6  
 .00023  
 .00025  
 .00028  
 .00001

CYN6  
 -.00012  
 -.00013  
 -.00015  
 -.00000

CBL6  
 .00008  
 .00009  
 .00010  
 .00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00051  
 -.00052  
 -.00054  
 -.00000

CA5  
 -.00098  
 -.00100  
 -.00103  
 -.00001

CLM5  
 .00083  
 .00084  
 .00087  
 .00000

CN6  
 .11461  
 .10851  
 .12549  
 .00136

CA6  
 .16574  
 .15592  
 .18148  
 .00197

CLM6  
 .23564  
 .22309  
 .25802  
 .00280

CY6  
 .00026  
 .00025  
 .00029  
 .00000

CYN6  
 -.00014  
 -.00013  
 -.00015  
 -.00000

CBL6  
 .00009  
 .00009  
 .00010  
 .00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00050  
 -.00053  
 -.00053  
 -.00000

CA5  
 -.00095  
 -.00101  
 -.00102  
 -.00001

CLM5  
 .00091  
 .00086  
 .00087  
 .00001

CN6  
 .11677  
 .11255  
 .12050  
 .00047

CA6  
 .16886  
 .16277  
 .17426  
 .00068

CLM6  
 .24008  
 .23141  
 .24776  
 .00096

CY6  
 .00027  
 .00026  
 .00028  
 .00000

CYN6  
 -.00014  
 -.00014  
 -.00015  
 -.00000

CBL6  
 .00009  
 .00009  
 .00010  
 .00000

RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA

-4.000

.000

4.000

GRADIENT

CN5  
 -.00052  
 -.00055  
 -.00054  
 -.00000

CA5  
 -.00099  
 -.00105  
 -.00104  
 -.00001

CLM5  
 .00084  
 .00089  
 .00088  
 .00001

CN6  
 .11730  
 .11670  
 .11697  
 -.00004

CA6  
 .16963  
 .16876  
 .16915  
 -.00066

CLM6  
 .24117  
 .23994  
 .24049  
 -.00009

CY6  
 .00027  
 .00027  
 .00027  
 -.00000

CYN6  
 -.00014  
 -.00014  
 -.00014  
 -.00000

CBL6  
 .00009  
 .00009  
 .00009  
 -.00000

DATE 03 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1 (GE8D78) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 336.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
 BOFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = 1.100

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5	CA5	CLM5	C-5	CA6	CLM6	CY6	CYN6	CBL6
-.00058	-.00111	.00094	.11952	.17285	.24575	.00027	-.00015	.00009
-.00057	-.00109	.00092	.12040	.17412	.24755	.00027	-.00015	.00010
-.00052	-.00118	.00100	.13596	.19661	.27953	.00031	-.00017	.00011
-.00000	-.00001	.00001	.00205	.00297	.00422	.00000	-.00000	.00000

PN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00055	-.00104	.00089	.12825	.18547	.26369	.00029	-.00016	.00010
-.00055	-.00105	.00089	.12450	.18004	.25598	.00028	-.00015	.00010
-.00057	-.00109	.00092	.13448	.19448	.27650	.00031	-.00016	.00011
-.00000	-.00001	.00000	.00078	.00113	.00160	.00000	-.00000	.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00054	-.00102	.00087	.13195	.19082	.27129	.00030	-.00016	.00010
-.00053	-.00102	.00087	.12663	.18312	.26035	.00029	-.00015	.00010
-.00055	-.00106	.00090	.13397	.19374	.27545	.00031	-.00016	.00011
-.00000	-.00000	.00000	.00025	.00037	.00052	.00000	-.00000	.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00052	-.00100	.00085	.12380	.17903	.25454	.00028	-.00015	.00010
-.00054	-.00103	.00088	.13345	.19298	.27437	.00030	-.00016	.00011
-.00056	-.00107	.00091	.13558	.19606	.27875	.00031	-.00017	.00011
-.00000	-.00001	.00001	.00147	.00213	.00303	.00000	-.00000	.00000

RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CBL6
-.00054	-.00103	.00087	.12933	.18703	.26591	.00030	-.00016	.00010
-.00057	-.00110	.00093	.13942	.20163	.28666	.00032	-.00017	.00011
-.00057	-.00110	.00093	.12603	.18226	.25912	.00029	-.00015	.00010
-.00000	-.00001	.00001	-.00041	-.00060	-.00085	-.00000	-.00000	-.00000

DATE 08 MAY 76

## TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 716

(CE8079) ( 23 AUG 75 )

0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

## REFERENCE DATA

SREF = 8590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDUCT = -10.000 SPCBRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .900

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00033	-.00053	.00054	.10004	.14468	.20569	.00027	-.00012	.00006
-.00031	-.00059	.00050	.08799	.12724	.18090	.00020	-.00011	.00007
-.00032	-.00060	.00051	.06870	.12828	.18238	.00020	-.00011	.00007
.00000	.00000	-.00000	-.00142	-.00205	-.00291	-.00000	.00000	-.00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00030	-.00058	.00049	.08747	.12649	.17984	.00020	-.00011	.00007
-.00030	-.00056	.00043	.08534	.12342	.17546	.00019	-.00010	.00007
-.00031	-.00059	.00050	.07725	.11171	.15882	.00018	-.00009	.00006
-.00000	-.00000	.00000	-.00128	-.00185	-.00263	-.00000	.00000	-.00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00029	-.00056	.00048	.08258	.11942	.16978	.00019	-.00010	.00007
-.00028	-.00053	.00045	.08173	.11820	.16805	.00019	-.00010	.00006
-.00029	-.00056	.00048	.07742	.11196	.15918	.00018	-.00009	.00006
-.00000	-.00000	.00000	-.00064	-.00093	-.00133	-.00000	.00000	-.00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00030	-.00057	.00048	.08383	.12123	.17236	.00019	-.00010	.00007
-.00030	-.00057	.00048	.08458	.12231	.17390	.00019	-.00010	.00007
-.00029	-.00055	.00047	.07459	.10787	.15336	.00017	-.00009	.00006
.00000	.00000	-.00000	-.00116	-.00167	-.00238	-.00000	.00000	-.00000

RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CNS	CAS	CLM5	CN6	CAS	CLM6	CY6	CYN6	CBL6
-.00035	-.00066	.00056	.09500	.13736	.19532	.00022	-.00012	.00008
-.00033	-.00064	.00054	.09280	.13420	.19080	.00021	-.00011	.00007
-.00035	-.00067	.00057	.09210	.13320	.18937	.00021	-.00011	.00007
-.00000	-.00000	.00000	-.00036	-.00052	-.00074	-.00000	.00000	-.00000

DATE 09 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

PAGE 717

(GE8080) ( 23 AUG 75 )

0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
BDFLAP = -11.700 ELVN-L = 10.000  
ELVN-R = -10.000 MACH = .600

RN/L = 4.83 C JIENT INTERVAL = -5.00/ 5.00

ALPHA = -4.000	BETA	CNS	CA5	CLM5	CNS	CA6	CLM6	CY6	CYN6	CBL6
-8.000	.00033	-.00062	.00053	.08921	.12900	.18341	.00020	-.00011	-.00007	
-4.000	.00031	-.00060	.00051	.08977	.12982	.18457	.00020	-.00011	-.00007	
.000	.00027	-.00051	.00044	.07993	.11559	.16433	.00018	-.00010	-.00006	
4.000	.00027	-.00051	.00043	.07835	.11331	.16110	.00018	-.00010	-.00006	
8.000	.00028	-.00054	.00045	.08073	.11674	.16597	.00018	-.00010	-.00006	
GRADIENT	.00001	.00001	-.00001	-.00143	-.00206	-.00293	-.00000	.00000	-.00000	

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = .000	BETA	CNS	CA5	CLM5	CNS	CA6	CLM6	CY6	CYN6	CBL6
-8.000	.00032	-.00061	.00052	.09275	.13413	.19069	.00021	-.00011	-.00007	
-4.000	.00030	-.00057	.00048	.08755	.12661	.18001	.00020	-.00011	-.00007	
.000	.00026	-.00050	.00042	.07865	.11374	.16171	.00018	-.00010	-.00006	
4.000	.00026	-.00049	.00042	.07573	.10952	.15570	.00017	-.00009	-.00006	
8.000	.00030	-.00058	.00049	.08027	.11608	.16504	.00018	-.00010	-.00006	
GRADIENT	.00001	.00001	-.00001	-.00148	-.00214	-.00304	-.00000	.00000	-.00000	

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000	BETA	CNS	CA5	CLM5	CNS	CA6	CLM6	CY6	CYN6	CBL6
-8.000	.00030	-.00057	.00048	.08811	.12742	.18116	.00020	-.00011	-.00007	
-4.000	.00030	-.00056	.00049	.08573	.12398	.17627	.00020	-.00010	-.00007	
.000	.00027	-.00052	.00044	.08091	.11701	.16635	.00018	-.00010	-.00006	
4.000	.00025	-.00048	.00040	.06988	.10106	.14368	.00016	-.00005	-.00006	
8.000	.00028	-.00054	.00046	.07270	.10514	.14947	.00017	-.00009	-.00006	
GRADIENT	.00001	.00001	-.00001	-.00198	-.00237	-.00407	-.00000	.00000	-.00000	

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000	BETA	CNS	CA5	CLM5	CNS	CA6	CLM6	CY6	CYN6	CBL6
-8.000	.00030	-.00058	.00049	.07431	.10747	.15279	.00017	-.00009	-.00006	
-4.000	.00029	-.00056	.00048	.08593	.12426	.17666	.00020	-.00010	-.00007	
.000	.00027	-.00052	.00044	.08196	.11852	.16851	.00019	-.00010	-.00006	
4.000	.00027	-.00051	.00043	.08654	.12515	.17793	.00020	-.00011	-.00007	
8.000	.00031	-.00058	.00050	.08041	.11628	.16532	.00018	-.00010	-.00006	
GRADIENT	.00000	.00001	-.00001	-.00008	.00011	.00016	-.00000	.00000	-.00000	

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

(GE8D80) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 930.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA = 12.000

BETA

-8.000

-4.000

.000

.000

4.000

8.000

GRADIENT

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BDFLAP = -11.700 ELVN-L = 10.000  
 ELVN-R = -10.000 MACH = .600

CN5  
 -0.0028  
 -0.0029  
 -0.0025  
 -0.0030  
 -0.0034  
 -0.0000  
 GRADIENT

CA5  
 -0.0053  
 -0.0035  
 -0.0048  
 -0.0057  
 -0.0065  
 -0.0000

CLM5  
 .00045  
 .00047  
 .00041  
 .00049  
 .00055  
 .00000

CN6  
 .07857  
 .08281  
 .07724  
 .08449  
 .09569  
 .00021

CA6  
 .11362  
 .11976  
 .11170  
 .12218  
 .13839  
 .00030

CLM6  
 .16154  
 .17027  
 .15881  
 .17371  
 .19675  
 .00043

CY6  
 .00018  
 .00019  
 .00018  
 .00019  
 .00022  
 .00000

CYN6  
 -.00010  
 -.00010  
 -.00009  
 -.00010  
 -.00012  
 -.00000

CBL6  
 -.00006  
 -.00007  
 -.00006  
 -.00007  
 -.00008  
 -.00000

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XJ  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA

-4.000

BETA

.000

GRADIENT

RUN NO. 0/ 0 RN/L = 2.93 GRADIENT INTERVAL = -5.00/ 5.00

CN5

-0.0052

.00000

CA5

-0.00100

.00000

CLM5

.00085

.00000

CN6

.08822

.00000

CA6

.12757

.00000

CLM6

.18138

.00000

CY6

-.00020

.00000

CYN6

.00011

.00000

CBL6

-.00007

.00000

ALPHA

.000

BETA

.000

GRADIENT

CN5

-0.0052

.00000

CA5

-0.00099

.00000

CLM5

.00084

.00000

CN6

.08888

.00000

CA6

.12853

.00000

CLM6

.18273

.00000

CY6

-.00020

.00000

CYN6

.00011

.00000

CBL6

-.00007

.00000

RUN NO. 0/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

CN5

-0.0053

-0.0051

CA5

-0.00101

-0.00097

CLM5

.00086

.00083

CN6

.10095

.09255

CA6

.14598

.13384

CLM6

.20755

.18436

CY6

-.00023

-.00020

CYN6

.00012

.00011

CBL6

-.00008

-.00007

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS I (GE8081) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 935.6800 IN.  
 SCALE = .0300

XMRP = 1076.6900 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA  
 RUDDER = 10.000 SPDBRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.400

RUN NO. 0/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA  
8.000

BETA  
 .000  
 GRADIENT

CN5  
 -.00050  
 .00000

CA5  
 -.00095  
 .00000

CLM5

CN6  
 .09267  
 .00000

CA6  
 .13401  
 .00000

CLM6

CY6  
 -.00021  
 .00000

CYN6  
 .00011  
 .00000

CBL6  
 -.00007  
 .00000

RUN NO.

0/ 0

RN/L =

2.91

GRADIENT INTERVAL =

-5.00/ 5.00

ALPHA  
 12.000  
 12.000  
 12.000

BETA  
 -4.000  
 .000  
 4.000  
 GRADIENT

CN5  
 -.00051  
 -.00050  
 -.00050  
 -.00050  
 .00000

CA5  
 -.00098  
 -.00096  
 -.00096  
 -.00096  
 .00000

CLM5

CN6  
 .10882  
 .09583  
 .09051  
 -.00229  
 .00000

CA6  
 .15737  
 .13859  
 .13089  
 -.00331  
 .00000

CLM6

CY6  
 -.00025  
 -.00022  
 -.00021  
 .00001  
 .00000

CYN6  
 .00013  
 .00012  
 -.00007  
 -.00000  
 .00000

CBL6  
 -.00009  
 -.00008  
 -.00007  
 .00000  
 .00000

RUN NO.

0/ 0

RN/L =

2.91

GRADIENT INTERVAL =

-5.00/ 5.00

ALPHA  
 16.000

BETA  
 .000  
 GRADIENT

CN5  
 -.00053  
 .00000

CA5  
 -.00101  
 .00000

CLM5

CN6  
 .10058  
 .00000

CA6  
 .14546  
 .00000

CLM6

CY6  
 -.00023  
 .00000

CYN6  
 .00012  
 .00000

CBL6  
 -.00008  
 .00000

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 935.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA  
 RUDDER = 10.000 SPDBRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.250

RUN NO.

0/ 0

RN/L =

3.03

GRADIENT INTERVAL =

-5.00/ 5.00

ALPHA  
 -4.300

BETA  
 .000  
 GRADIENT

CN5  
 -.00056  
 .00000

CA5  
 -.00107  
 .00000

CLM5

CN6  
 .10054  
 .00000

CA6  
 .14539  
 .00000

CLM6

CY6  
 -.00023  
 .00000

CYN6  
 .00012  
 .00000

CBL6  
 -.00008  
 .00000

RUN NO.

0/ 0

RN/L =

3.03

GRADIENT INTERVAL =

-5.00/ 5.00

ALPHA  
 .000

BETA  
 .000  
 GRADIENT

CN5  
 -.00056  
 .00000

CA5  
 -.00107  
 .00000

CLM5

CN6  
 .10362  
 .00000

CA6  
 .14985  
 .00000

CLM6

CY6  
 -.00024  
 .00000

CYN6  
 .00013  
 .00000

CBL6  
 -.00008  
 .00000

DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1 (GEBC82) ( 23 AUG 75 )

## REFERENCE DATA

XREF = 2690.0000 SQ. FT. XMRP = 1076.6900 IN. XO RUDDER = 10.000 SPBRK = .000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BOFLAP = -11.700 ELVN-L = -10.000  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = 1.250  
 SCALE = .0300

## PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
4.000	-4.000	-0.0055	-0.00106	.00090	.12149	.17569	.24978	-0.00028	.00015	-0.00010
4.000	.000	-0.0055	-0.00104	.00089	.10732	.15519	.22055	-0.00024	.00013	-0.00009
4.000	4.000	-0.0053	-0.00101	.00085	.11031	.15952	.22683	-0.00025	.00013	-0.00009
	GRADIENT	.00000	.00001	-0.00000	-0.00140	-0.00202	-0.00287	.00000	-0.00000	.00000

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
8.000	.000	-0.0053	-0.00101	.00086	.10966	.15858	.22546	-0.00025	.00013	-0.00009
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
12.000	-4.000	-0.0055	-0.00104	.00088	.11617	.16800	.23885	-0.00027	.00014	-0.00009
12.000	.000	-0.0055	-0.00105	.00089	.11336	.16393	.23306	-0.00026	.00014	-0.00009
12.000	4.000	-0.0054	-0.00103	.00088	.11418	.16511	.23475	-0.00026	.00014	-0.00009
	GRADIENT	.00000	.00000	-0.00000	-0.00025	-0.00036	-0.00031	.00000	-0.00000	.00000

## REFERENCE DATA

XREF = 2690.0000 SQ. FT. XMRP = 1076.6900 IN. XO RUDDER = 10.000 SPBRK = .000  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO BOFLAP = -11.700 ELVN-L = -10.000  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO ELVN-R = 10.000 MACH = 1.100  
 SCALE = .0300

## PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.19 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
-4.000	.000	-0.0058	-0.00112	.00095	.12302	.17790	.25293	-0.00028	.00015	-0.00010
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CA5	CLM5	CN6	CA6	CLM6	CY6	CYN6	CEL6
.000	.000	-0.0056	-0.00107	.00091	.12456	.18013	.25610	-0.00028	.00015	-0.00010
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1 (GEBC83) ( 23 AUG 75 )



DATE 08 MAY 76

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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(GE8083) ( 23 AUG 75 )

0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = 1.100

RUN NO. 0/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CAS	CLM5	CNS	CAS	CLM6	CY6	CNS	CEL6
4.000	-4.000	-0.0056	-0.0107	.00090	.13163	.19035	.27063	.00030	.00015	-0.0010
4.000	.000	-0.0054	-0.0104	.00088	.12589	.18205	.25893	.00029	.00015	-0.0010
4.000	4.000	-0.0053	-0.0101	.00086	.12178	.17611	.25038	-0.0028	.00015	-0.0010
	GRADIENT	.00000	.00001	-.00001	-.00123	-.00178	-.00253	.00000	-.00000	.00000

RUN NO. 0/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CAS	CLM5	CNS	CAS	CLM6	CY6	CNS	CEL6
8.000	.000	-0.0054	-0.0104	.00088	.13056	.18981	.26844	-.00030	.00016	-0.0010
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CAS	CLM5	CNS	CAS	CLM6	CY6	CNS	CEL6
12.000	-4.000	-0.0057	-0.0108	.00092	.12748	.18436	.26210	-.00023	.00015	-0.0010
12.000	.000	-0.0057	-0.0109	.00093	.13460	.19455	.27675	-.00031	.00015	-0.0011
12.000	4.000	-0.0055	-0.0104	.00089	.12663	.18312	.26035	-.00029	.00015	-0.0010
	GRADIENT	.00000	.00000	-.00000	-.00011	-.00015	-.00022	.00000	-.00000	.00000

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = .000  
 BDFLAP = -11.700 ELVN-L = -10.000  
 ELVN-R = 10.000 MACH = .900

RUN NO. 0/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CAS	CLM5	CNS	CAS	CLM6	CY6	CNS	CEL6
-4.000	.000	-0.0033	-0.0062	.00053	.09413	.13612	.19353	-.00021	.00012	-0.0007
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.59 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CNS	CAS	CLM5	CNS	CAS	CLM6	CY6	CNS	CEL6
.000	.000	-0.0031	.00059	.00050	.08747	.12650	.17984	-.00020	.00011	-0.0007
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

(GE8084) ( 23 AUG 75 )

0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

DATE 08 MAY 75

TABULATED FORCE DATA - 0A148 ( AMES 11-073-1 )

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

(GE8084) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000  
 BOFLAP = -11.700  
 ELVN-R = 10.000  
 ELVN-L = -10.000  
 MACH = .500

## PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.58 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA = 4.000  
 GRADIENT = 4.000

CNS = -1.00030  
 CAS = -1.00058  
 CLMS = .00049

CNS = .05781  
 CAS = .09806  
 CLMS = .13942

CNS = .00015  
 CAS = .00019  
 CLMS = .00019

CNS = .00010  
 CAS = .00010  
 CLMS = .00010

CNS = .00000  
 CAS = .00000  
 CLMS = .00000

RUN NO. 0/ 0 RN/L = 3.58

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA = 8.000  
 GRADIENT = 8.000

CNS = -1.00031  
 CAS = -1.00059  
 CLMS = .00050

CNS = .08372  
 CAS = .12107  
 CLMS = .17213

CNS = .00019  
 CAS = .00019  
 CLMS = .00019

CNS = .00010  
 CAS = .00010  
 CLMS = .00010

CNS = .00000  
 CAS = .00000  
 CLMS = .00000

RUN NO. 0/ 0 RN/L = 3.58

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA = 12.000  
 GRADIENT = 12.000

CNS = -1.00033  
 CAS = -1.00064  
 CLMS = .00054

CNS = .09280  
 CAS = .13421  
 CLMS = .19080

CNS = .00020  
 CAS = .00020  
 CLMS = .00020

CNS = .00011  
 CAS = .00011  
 CLMS = .00011

CNS = .00000  
 CAS = .00000  
 CLMS = .00000

0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1

(GE8085) ( 23 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.6000 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

RUDDER = 10.000  
 BOFLAP = -11.700  
 ELVN-R = 10.000  
 ELVN-L = -10.000  
 MACH = .600

## PARAMETRIC DATA

RN/L = 4.82 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA = 4.000  
 GRADIENT = 4.000

CNS = -1.00033  
 CAS = -1.00063  
 CLMS = .00054

CNS = .08704  
 CAS = .12568  
 CLMS = .17897

CNS = .00020  
 CAS = .00020  
 CLMS = .00020

CNS = .00011  
 CAS = .00011  
 CLMS = .00011

CNS = .00000  
 CAS = .00000  
 CLMS = .00000

RN/L = 4.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 8.000  
 BETA = 8.000  
 GRADIENT = 8.000

CNS = -1.00031  
 CAS = -1.00059  
 CLMS = .00050

CNS = .08503  
 CAS = .12296  
 CLMS = .17482

CNS = .00020  
 CAS = .00020  
 CLMS = .00020

CNS = .00010  
 CAS = .00010  
 CLMS = .00010

CNS = .00000  
 CAS = .00000  
 CLMS = .00000

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0A148 -140 A/B/C VERTICAL T. BASE INCREMENTS 1 (GSEDS) ( 23 AUG 75 )

# REFERENCE DATA

SREF = 2893.000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.6000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.2000 IN. ZMRP = 375.0000 IN. Z0  
 SCA = .0000

# PARAMETRIC DATA

RUDDER = 10.000 SDEBK = .000  
 BDFLAP = -10.000 ELVN-L = -10.000  
 ELVN-R = 10.000 WCH = .000

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 4.000  
 BETA  
 GRADIENT

CAS CAS CLMS CLMS  
 -0.0031 -0.0053 .00050 .00000  
 .00000 .00000 .00000 .00000

CAS CAS CLMS CLMS  
 .11900 .11900  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

ALPHA = 8.000  
 BETA  
 GRADIENT

CAS CAS CLMS CLMS  
 -0.0030 -0.0057 .00049 .00000  
 .00000 .00000 .00000 .00000

CAS CAS CLMS CLMS  
 .119+6 .119+6  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA = 12.000  
 BETA  
 GRADIENT

CAS CAS CLMS CLMS  
 -0.0029 -0.0055 .00046 .00000  
 .00000 .00000 .00000 .00000

CAS CAS CLMS CLMS  
 .11934 .11934  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000

CAS CAS CLMS CLMS  
 .00000 .00000  
 .00000 .00000